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A systematic review of the effectiveness of asset-focussed interventions against organised crime

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# **WHAT WORKS: CRIME REDUCTION SYSTEMATIC REVIEW SERIES**

## **NO 9. A SYSTEMATIC REVIEW OF THE EFFECTIVENESS OF ASSET-FOCUSSED INTERVENTIONS AGAINST ORGANISED CRIME**

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## **A SYSTEMATIC REVIEW OF THE EFFECTIVENESS OF ASSET-FOCUSSED INTERVENTIONS AGAINST ORGANISED CRIME**

### **ABSTRACT**

Organised crime is a pernicious problem in many contemporary societies. Asset-focussed interventions have been deployed with increasing frequency in a range of jurisdictions to tackle this problem; however, the effectiveness of such interventions in reducing organised crime remains unclear. This systematic review seeks to identify and interrogate the evidence base on asset-focussed interventions against organised crime, and in doing so address the question of the effectiveness of such interventions.

The results presented in this review will show that the practical effectiveness of asset-focussed interventions remains unclear. There is a paucity of evidence from primary evaluations on which to provide an assessment of the outcomes of asset-focussed interventions. Despite this, there has been widespread adoption of such policies and practices, based on implicit assumptions about why and how they are expected to ‘work’. We use a systematic framework of analysis in this review to identify and examine the various theoretical rationales which support these quite widespread assumptions of effectiveness. These theoretical perspectives do not, in fact, always offer the kind of unequivocal support that advocates of asset-focussed interventions against organised crime would hope for. For example, deterrence through both the threat and reality of financial ‘punishment’ is a primary mechanism through which asset-focussed interventions are justified and expected to work, but its underlying principles have been subject to critique in this field, as in others.

This review points not only to the gaps in the current evidence-base on asset-focussed interventions – such as any known effect size, whether the theoretical rationale for such approaches is supported by evidence, and the precise cost-effectiveness of deploying such tactics – but also to the areas in which knowledge has been generated: from the causal mechanism that is purported to underpin the approach, to the contextual and practical factors that support successful implementation. Overall, we highlight the lack of evidence in support of the effectiveness of asset-focussed interventions in reducing organised crime. This is not to say definitively that these interventions are ineffective in reducing organised crime, but rather to point out that in terms of the available evidence on cause and effect, it is not possible to identify whether they are or are not effective.

The evidence base for judging the effectiveness of asset-focussed interventions is weak, but the moral imperative upon which such approaches rest remains attractive, defensible and popular in the current climate. Given this strong populist foundation, therefore, asset-focussed interventions are likely to remain a key tactic used by law enforcement and policing agencies against organised crime, irrespective of any firm foundation of evidence to suggest that they can be truly said to ‘work’. This area is therefore germane for future research in conjunction with policing and law enforcement agencies.

## **EXECUTIVE SUMMARY**

### **Aims and objectives**

Asset-focussed interventions (AFIs) refer to a variety of measures that target the assets and/or financial resources gained from organised criminal activity and which may be intended for use in future crimes. AFIs seek to reduce the financial resources available to individuals involved in organised crime thereby reducing organised crime itself. AFIs include cash seizure, detention and forfeiture; asset confiscation; civil recovery of assets; recovering unpaid tax on criminal earnings that will not have been previously declared for tax purposes; and seizure and removal of property, including vehicles.

This report is a systematic review of the evidence that AFIs are effective in reducing the threat or harm of organised crime. The standard approach of a systematic review, meta-analysis, was not able to be conducted here since after a wide literature search no studies were identified that met the inclusion criteria for evidence to be considered in this review. Unable to use meta-analytical procedures, we instead conducted a realist synthesis of the 104 studies that reported on the reduction of organised crime associated with the use of AFIs. A realist synthesis follows a systematic approach to identifying relevant research and focusses on identifying the causal mechanisms through which an intervention (here AFIs) is expected to work, and under which conditions.

Following the EMMIE framework of systematic analysis, we searched for evidence and theory on:

The ‘**E**ffect’ of AFIs: what results do they obtain?

The ‘**M**echanism’ of AFIs: how do they work?

The ‘**M**oderators’ for the effect of AFIs: in which contexts do they work best?

The ‘**I**mplementation’ of AFIs: how issues around implementation may affect results

The ‘**E**conomics’ of AFIs: the cost-benefit issue.

The majority of the literature included in the realist synthesis focussed on specific European countries or Europe in general (68 studies, 35 of which focussed on the UK/England and Wales specifically). A further 25 studies focussed on non-European countries or a mixture of European and non-European countries including Australia, the US, South Africa, Hong Kong and Canada. Some were discussions at the international level or general think pieces.

### **Findings**

#### **What are the effects of AFIs?**

There is an absence of evidence on outcomes of AFIs, which would include measures like organised crime reduction, prevention, or the reduction in the harm caused by organised crime. It is possible that AFIs may reduce or prevent organised crime (e.g. through a measure like number of offences per year) or the harm organised crime causes (e.g. through diversion from more harmful into less harmful types of organised crime). We were unable, however, to find any research that produced reliable estimates of these types of ‘outcome’ effect.



### **How do AFIs work?**

Three mechanisms were found in the literature as the main propositions for how we might think AFIs would achieve a crime reduction effect. These are deterrence, disruption, and diminution. AFIs may achieve a deterrent effect if prospective criminals think they might have to surrender the profits of their criminal activity. AFIs may disrupt organised crime by depleting accumulated capital and forcing criminals to ‘start again’ with their enterprise-building activities. Where AFIs allow the state to reinvest recovered criminal finance in pro-social initiatives, this might be considered as diminishing the overall calculus of social harm caused by such crimes, although clearly this kind of calculation can be quite abstract compared to the real experiences of the victims of organised crime.

### **In what contexts do AFIs work best?**

Contexts for moderating the effect of AFIs were not evaluated in the literature but we have been able to distil the main assumptions that have been made about when AFIs will be likely to work best. AFIs consider organised criminals to be profit-motivated, and risk-averse to the prospect of the removal of particular assets, so they will work best on criminals who conform to those assumptions. They will likely be most effective in respect of offences that produce significant detectable assets, where those assets are difficult to launder. They will ideally be located in a wider package of interventions to reduce organised crime, implemented by agencies who are appropriately trained and resourced, and will benefit from the availability of partners outside the police who are sensitive to the detection of suspicious financial transactions and motivated to report these to the police.

### **What are the implementation challenges for AFIs?**

Working with AFIs has been viewed as a specialist function in policing and the mainstreaming and routinisation of financial investigation remains a challenge. Some types of AFI have been criticised as lacking a coherent overall strategy with clear agreed success measures, which is a problem that has been reflected in the difficulty in finding data to support our analysis in other areas of this review. There is a lack of good performance data, outdated systems, poor attempts at joined-up working between partner agencies, ineffective sanctions for non-payment, and quite considerable projections of unrecoverable debt. Implementation therefore appears to be a significant issue for AFIs.

### **What are the costs versus the benefits of AFIs?**

The closest available evidence to outcome data on AFIs is output data, in other words measures of what AFIs produce rather than what practical effect they achieve. For AFIs these data are mainly cost-benefit analyses, which take the ‘benefit’ measured as being the value of assets recovered from criminals, but not any associated reduction in organised crime. So the ‘output’ here is the net value of assets recovered after deduction of the scheme’s running costs. Cost-benefit studies for AFIs present a range of interpretations of the AFI system, from those which see it as making a substantial loss (i.e. expenses significantly outweigh takings) to others which see it as being in credit (i.e. takings are greater than costs). In the face of such mixed results, it is difficult to rule definitively on the question of cost-benefit.

## BACKGROUND

Organised crime is a pernicious problem in many contemporary societies. The spread of organised criminal groups and networks across space and time – from the traditional *Mafiosi* in Italy to current cyber-criminals operating with seeming scant regard for modern borders – has prompted a range of responses from an array of agencies and actors. Such responses reflect the view that countering organised crime is one of the major challenges of the twenty-first century (Laycock, 2010: xv). Among these responses, asset-focussed interventions have emerged to become one of the central tools used by policing and law enforcement agencies in their attempts to tackle and reduce organised crime. The UK Government's *Serious and Organised Crime Strategy*, for example, lists various asset-focussed interventions as part of its broader effort to pursue organised crime. Asset-focussed interventions against organised crime have also been identified as valuable approaches across Europe (see European Commission, 2008) and feature in strategies to tackle organised crime in jurisdictions further afield: from Australia (Australian Government, 2015) to the United States (White House, 2011). Such approaches take on growing relevance given that the 'economics of crime' – which is to say the promise and practice of applying economics to understanding crime problems – has become an area of growing activity and concern; becoming influential in the formulation of crime reduction and criminal justice policy (Albertson and Fox, 2011). Such approaches have been particularly important in focussing attention towards the costs, both social and economic, of organised crime in the UK (see Mills et al, 2013).

In this review we use the term 'asset-focussed interventions' in preference to other – currently popular – terms such as 'asset-recovery'. The rationale for doing so has a basis in the existing literature, within which the term 'asset recovery' has been subject to some critique (see Bullock and Lister, 2014: 47). Discussing 'asset-focussed interventions' provides a holistic framework in which to locate an array of particular interventions and tactics with distinct rationales, functions and anticipated outcomes: from cash seizure, detention and forfeiture (undertaken where there are reasonable grounds to suspect assets derive from crime or are intended for use in a crime, and which do not require a criminal conviction) to confiscation (which occurs after a conviction has taken place and imposes an order requiring an individual to pay to the State an amount specified by a court).

In the development of a sensible framework within which a typology of such interventions can be located – and which should therefore be useful for practitioners – the distinction between asset-recovery and asset-focussed interventions can be considered as thinking beyond taking assets for good. Intuitively, *asset-recovery* suggests that illegally accrued assets of a particular person, group or network have been taken from (in this case 'organised') criminals by the State, never to be returned. Asset-recovery thus takes assets 'for good' in the sense that they will not again be available to criminals for further illegal use or personal enjoyment, but also with a strong normative claim: that this is the morally right thing to do. The strong influence of this moral rationale has had a negative impact on the demand for an evidence base from which to assess the effectiveness of such interventions. The necessity for evidence that asset-focussed interventions actually 'work' in reducing organised crime has diminished in this ideologically infused climate. For example, as noted in the European context,

“While there are strong political and moral reasons for pursuing criminal asset recovery, **relevant direct economic and criminal justice impact**

**indicators are hard to identify and difficult to measure.** At present, no institution in the EU is measuring in any extensive way the effect of *particular instruments* (such as criminal asset confiscation) on criminal careers, the organisation of crimes or money laundering. Furthermore, no attempts to assess the impact of criminal wealth and conspicuous consumption on communities have been made, even in the UK where this kind of research is at a relatively advanced stage of development.” (European Commission, 2009: 68).

Despite this assessment, asset-focussed interventions have flourished in recent times. A broad consideration of the evidence in support of asset-focussed interventions presents a requirement to strip out the idealism of a strict and permanent ‘asset-recovery’ and move towards a perspective that incorporates, for example, the identification and temporary restraint of assets for the purposes of *disrupting* criminal activities. Asset-focussed interventions thus encompass actions that are undertaken not because they are the right thing to do (although they may very well be so), but because they are considered to be the most effective thing to do, even where the assets are likely to be ultimately returned.

The shift towards using the tactics, techniques and tools of asset-focussed interventions has been predicated, at least in part, upon the perceived failure of conventional policing and law enforcement approaches to effectively tackle organised crime (King and Walker, 2014: 3-4; King, 2014: 145). Such perceptions reflect a wider, fundamental issue in relation to the effectiveness of traditional approaches to reduce organised crime:

“The organized crime control policies which have been “standard” tools against organized crime have not been evaluated; their continued use is based on belief, rather than on knowledge that they are indeed effective... The fact that such assessment and evaluation has not occurred is puzzling, given the tremendous resources invested in organized crime control policies.” (Albanese, 2009: 415).

Albanese’s assessment of the non-existent evaluation of the effectiveness and impact of organised crime control policies applies in equal measure to both conventional measures (such as criminal investigation, prosecution and imprisonment) and emerging approaches, such as asset-focussed interventions. Indeed, despite both the relatively recent development of legal regimes to fully facilitate and empower asset-focussed interventions and the investments in enhancing the capabilities of agencies to identify and intervene against criminal assets, the effectiveness of asset-focussed interventions in actually reducing organised crime remains unclear. The state of the evidence base here has not gone unremarked by researchers concerned with asset-focussed interventions. For example, as Araujo and Moreira have stated, “in the literature there is no consensus on the results produced by confiscation.” (Araujo and Moreira, 2012: 2). Early assessments were, in fact, discouraging. In 1995 – before the development and implementation of the current legal regime and practices in the UK – Levi and Osofsky thought that,

“No one who reviewed the current state of confiscation of the proceeds of crime in England and Wales in any detail would be likely to judge it a success.” (Levi and Osofsky, 1995: vi).

This review seeks to update Levi and Osofsky’s assessment in the context of a contemporary policing and law enforcement landscape in which asset-focussed

interventions to tackle organised crime have become increasingly prominent, supported by both political will and an extensive legal regime. The impetus for doing so resonates with recent observations – such as those made in the context of considering the proceeds of crime framework in Australia – that the effectiveness of such actions in deterring, disrupting and preventing crime requires further empirical examination (Crime and Corruption Committee Queensland, 2015).

## **OBJECTIVES OF THIS REVIEW**

The review that follows seeks to identify and evaluate the evidence relating to asset-focussed interventions against organised crime, and in doing so answer a specific question:

*‘Are asset-focussed interventions effective in reducing the level of threat and/or harm posed by organised crime groups and networks?’*

As we will explain further below, the combination of threat and harm is a fairly standard measure of ‘risk’ in relation to organised crime, where threat is a function of the intent and capability of an organised crime group or network. So the risk an organised crime group or network is taken to present can be thought of, in very crude terms, as a function of the relationship between (a) the capability of the group to achieve their goals, (b) the level of their intent to do so, and (c) the type and extent of the harm that would be caused if they did (Hamilton-Smith and Mackenzie, 2010). When we are looking for an effect of asset-focussed interventions against organised crime, what might be generally conceived as a crime-reductive or crime-preventive effect may be more specifically identifiable as a reduction in the level of threat and/or harm associated with the activities of organised crime groups or networks, and therefore an overall reduction in the risk associated with organised crime in society.

Answering this research question is particularly timely given not just the increasing use of asset-focussed interventions against organised crime, but also the ways in which such interventions have been explicitly targeted in some jurisdictions as measures to mitigate the harms caused by such criminality (see Gilmour, 2008: 20; Sergi, 2014: 75; Scottish Government, 2015). Nevertheless, one must recognise that the issues of threat and harm in relation to organised crime are problematic and require further discussion; resonating with Michael Levi’s consideration of the ‘complexity and variegation of harm and threat judgements’ in thinking about organised crime (Levi, 2014: 12).

In fulfilling its objectives this review draws upon the multiple perspectives outlined in the work of Thompson and Belur (2016), principally that: systematic reviews aim to synthesise findings from primary studies to build a composite picture of the evidence in a field; grounded in the principle that decision points in the research process should be reported in enough detail so they are transparent and replicable by others, and findings can be scientifically verified; embracing wide-ranging and comprehensive search tactics, through which multidisciplinary academic and grey literature is pursued; and, using meta-analytical techniques, statistically aggregating primary study data located via systematic search methods where possible and appropriate. Additionally, drawing upon EMMIE (a framework explained at greater length below: Johnson et al, 2015), and realist synthesis (Pawson, 2006), we aim, where possible, to identify the causal mechanisms through which asset-focussed interventions are expected to reduce crime and the conditions under which such interventions have been found to be effective, ineffective and/or to produce

unintended effects. Lastly, we aim to examine information where possible on the costs of implementing and undertaking asset-focussed interventions.

## **TOWARDS AN UNDERSTANDING OF ORGANISED CRIME**

Defining organised crime has proven to be persistently challenging. For some time there has been no consensus on the nature of organised crime or even its significance (Maltz, 1976: 338; see also Dellow, 1987: 200). Attempts at developing a specific definition or typology of organised crime have proven problematic. Specific and particular definitions of organised crime can be overly prescriptive.<sup>1</sup> Alternatively, parsimony in criteria can lead to over-inclusion, thereby incorporating too many types of low-level criminal behaviours (see Bersten, 1990). This balance between definitions of organised crime that are either too narrow or too broad was recognised in the literature over 30 years ago (Maltz, 1985: 33-24). Appraising the problems of definition more recently Frank Hagan stated,

“Despite decades of effort, the search for a universal definition of organized crime has eluded both academics and criminal justice agencies, as well as international bodies.” (Hagan, 2006: 127).

Hagan considers the ‘indeterminate quagmire of definitional debate’ as indicative of many phenomena in the social sciences, but also remarks that it does not seem that a universal definitional consensus on organised crime is forthcoming (Hagan, 2006: 128). This continuing situation has important consequences for research and enquiry in this field; for example, Cavanagh et al (2015: 115) have commented that definitional disagreement between experts makes asking questions about organised crime difficult. Further developing Cavanagh et al’s assertion, the absence of an understanding of the nature of organised crime can also make enquiry about the *responses* to this phenomenon particularly challenging.

Yet despite these definitional difficulties – and some pragmatic shifts towards other forms of nomenclature beyond ‘organised crime’ (Levi, 1998) – the term continues to retain contemporary relevance and resonance for the public, policymakers and practitioners. As James Finckenauer has commented, organised crime is clearly not an esoteric or obscure topic of discussion (Finckenauer, 2005: 63). Organised crime certainly remains a priority issue for governments, and has increasingly prompted the development of coherent strategy and appropriate tactics in response to both the threat posed by organised crime groups and networks and the perceived harms that organised crime can cause. As Stuart Kirby and Nicki Snow (2016: 2) remarked in a recent article,

“Whilst this definitional debate continues, for governments (as well as international, national and local policing agencies), the visible ramifications of organised crime require a tangible and urgent response.” (Kirby and Snow, 2016: 2)

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<sup>1</sup> For example, see Levi’s critique of Maltz’s typology of organised crime, which includes violence as a definitional characteristic. Levi (1998: 335) suggests that such an approach would exclude, for example, producers of cannabis or ecstasy who are not engaged in violence or, similarly, ‘professional full-time fraudsters’; with potential consequences for the intensity or focus of police attention on such activities or sentencing levels following any successful prosecution.

Rather than attempting to drain this definitional quagmire in this review, we will focus our attention on information relevant to supporting decision-making and practice in aiming to provide crime reduction stakeholders with the knowledge, tools and guidance to help target resources more effectively. In this vein, we take an inclusive view of organised crime that engages with the themes arising in the academic literature but which is recognisable to practitioners.<sup>2</sup> In particular, we draw upon the definitions currently used by both HM Government (2013) and the Scottish Government (2009).<sup>3</sup>

For the purposes of this systematic review organised crime is understood as criminal activities that:

- involve more than one person, working on a continuing basis
- are organised, meaning that such activities involve control, planning and use of specialist resources
- benefit the individuals concerned, particularly through financial gain (but also, sometimes concomitantly, through increasing power, status or control of people or resources).

Groups and networks involved in organised crime will vary in size and complexity over time and space. They nevertheless typically engage in one or more types of criminal activities, including, but not limited to:

- the importation, production and/or distribution of illicit goods, such as controlled drugs or firearms
- the provision of illicit services, such as human trafficking
- organised acquisitive crimes
- fraud and money laundering through legitimate businesses.

These criminal activities may be transnational in nature, involving the movement of people, illicit goods and/or money across national borders. Organised crime groups or networks may also engage in cyber-crime; where crimes are either cyber-dependent (where the use of information communication technologies, computer networks or the internet are required for criminal activity to take place ‘online’) or cyber-enabled (where information communication technologies, computer networks or the internet are used to multiply the scale and speed of crimes that can also take place ‘offline’).

Organised crime groups and networks may use a variety of methods and techniques to further their criminal activities and illegal business interests, including, but not limited to, any of the following: the use of violence, threats or intimidation; bribery, corruption or collusion, often through gatekeepers, specialists or facilitators; and/or the use of sophisticated technologies to conduct operations, maintain security and evade justice.

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<sup>2</sup> Also recognising here Kirby et al’s view that the difficulties in identifying and measuring organised crime have contributed to a limited range of empirical evidence to inform policy makers and practitioners (Kirby et al, 2016).

<sup>3</sup> Whilst Kirby and Snow (2016) consider both a ‘national definition’ of organised crime in the context of the UK and ‘UK-wide’ practices of organised crime group mapping that standardise processes of identification, it is also important to recognise the uniqueness of Scottish context, which may affect both strategy and implementation. This is important given the ‘distinctive’ (Donnelly and Scott, 2010: 461) but ‘broadly familiar’ (Walker, 1999: 94) nature of Scottish policing in the post-devolution landscape, particularly following recent processes of police reform in Scotland (see Terpstra and Fyfe, 2014).

Whilst some of these methods and techniques may also be indicative of other areas of criminality (such as the use of violence, threats or intimidation by street-based territorial gangs) they are distinguished from such by their scale, ambition, and their organised, planned, and directed nature.

Overall on the question of ‘what is organised crime’, while an acknowledgement of the landscape of the debate over the definition of organised crime is important background to this review, a pragmatic approach to reviewing the evidence has been to accept the definitional work of the authors of the individual papers reviewed. In other words, in our keyword database searches, title/abstract reviews, and coding of the evidence on review of full papers, we have generally accepted the decision of the author/s on whether the issue in question is organised crime or not. Since our key search terms (see Appendix 1) always included ‘organised/organized crime’, the limitation of this search method in the context of the definitional debate over ‘organised crime’ is that our evidence base will have excluded any literature where the author/s have not classified the type of crime under study as organised, where a closer application of certain extant definitions of organised crime may have done so. The search method also will have included literature with the opposite problem: an over-inclusive approach to the term organised crime, where the author/s applied it to activities we might rather exclude from analysis for the purposes of this review. In fact, discussions of asset-focussed interventions against organised crime tend, on the whole, not to specify precisely the type of organised crime being discussed, so the problems inherent in the definitional debate take a back seat to the more general vagueness that characterises much writing on this subject.

## **THREAT AND HARM IN THE CONTEXT OF ORGANISED CRIME**

Further reflecting practitioner understandings, and expanding on the schema of threat, harm and risk we have introduced above, in this review we understand ‘threat’ as the capability and intent of organised crime groups and networks to undertake their activities (see Van Duyne and Vander Beken, 2009; Zoutendijk, 2010). Such an understanding of threat has previously been noted as ‘intuitively sensible’ (Hamilton-Smith and Mackenzie, 2010: 262). Beyond this, however, Natasha Tusikov (2012: 100) has remarked that a preponderant focus on threat in the study of organised crime has overshadowed a consideration of harm. This reflects a broader concern that harm has been a neglected concept within criminology; although one that has increasing political and practitioner relevance (Paoli and Greenfield, 2013a).

In relation to organised crime, the identification and measurement of harm has increasingly been a subject of concern for practitioners, policymakers and academics (see Home Office, 2004; Coyne and Bell, 2015: 60; Scottish Government, 2015). The shift in terminology in Europe in recent years from discussing purely ‘organised crime’ and towards ‘serious organised crime’ is indicative of an increasing concern with harm in such contexts (Paoli and Greenfield, 2013b: 863).<sup>4</sup> Recent academic concern has also moved to explore the nature and extent of harms associated with organised crime, although such research is still at an early stage (Levi, 2015)

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<sup>4</sup> Although it should be noted that there can be an implementation gap between the commitment to harm reduction in tackling organised crime and the political requirement to ‘evidence its success in simple quantitative terms’ (Mackenzie and Hamilton-Smith, 2011: 24).

Drawing upon the work of Finckenauer (2005), and supplemented with additional contributions from Maltz (1990) and Porteous (1998), for this review we broadly categorise the harms caused by organised crime as,

1. Economic harm
2. Physical harm
3. Psychological harm, including intimidation and feelings of powerlessness/cynicism
4. Societal harm, including harm to the integrity of legitimate institutional systems; for example, through corruption and bribery
5. Community harm, including indirect harms such as increased fear of crime or the undermining of community stability (Maltz, 1990)
6. Environmental harm (Porteous, 1998).<sup>5</sup>

Given that the wide understanding of organised crime in this review incorporates both organisational attributes and market-level dynamics, the consideration of harm is necessarily broad, incorporating both negative effects directly attributed to specific criminal actors, groups or networks and wider, potentially overlapping impacts. Considering the harms of organised crime is particularly important due to the aforementioned issue of scale: organised crime groups have a greater capacity to cause particular harms than individual criminals (Finckenauer, 2005: 78).<sup>6</sup> As Klaus von Lampe argues (2016: 369), the perceived scale and seriousness of organised crime has produced a response that has sought to: exhaust existing criminal law; increase the severity of sanctions on organised criminals; and create new offences to better capture the activities of organised criminals. Beyond the intensification of existing penalties such as imprisonment, new forms of punishment, reparation, countermeasure and control have emerged that seek punitive, disruptive, deterrent or preventive effects on the structures and activities of organised criminals. It is important to consider asset-focussed interventions as a set of responses that has developed within this emergent landscape.

## **DESCRIPTION OF ASSET-FOCUSSED INTERVENTIONS**

Tackling organised crime through financial means where other approaches are perceived to have failed is neither new nor unfamiliar. The prosecution of a notorious Chicago criminal in 1932 on charges of tax evasion has featured frequently in popular culture, with such alternative measures becoming widely known as the ‘Al Capone approach’. However, such alternative tactics have become much more common in recent times, particularly in the context of intensifying apprehensions about organised crime and the aforementioned realisation that conventional policing methods are insufficient to deter or disrupt those involved in such activities (King and Walker, 2014: 3-4). This has resulted in a range of innovative practices, including the move towards asset-focussed interventions.<sup>7</sup> Strategies, tactics and interventions that seek to pursue criminal finances

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<sup>5</sup> This categorisation of harm was first proposed in Hamilton-Smith and Mackenzie (2010).

<sup>6</sup> Although one must also recognise here that this capacity may be mitigated by perceptions of proximity. Organised crime may perhaps be considered by the public as existing and operating in an ‘underworld’ characterised by clandestinity, which may make perceptions of its harms somewhat intangible to the communities that it impacts upon.

<sup>7</sup> In examining the prosecutorial challenges of such approaches Anthony Smellie (2004:104) remarked that, “The moral of Al Capone’s case (and one which seems to continue to enlighten American law enforcement) is that the only sure way of putting the ‘Mr Bigs’ out of business is to confiscate their proceeds of crime.”



– referred to in the literature as the ‘follow the money’ approach – have been considered as one of the most important ways to make the UK a hostile environment for organised crime (Cabinet Office, 2009: 53).

The development of asset-focussed interventions to tackle organised crime is bound up in the UK context with political attempts to ‘re-balance’ the criminal justice system in favour of the ‘law abiding citizen’ (Sproat, 2007a: 170). In 1999, the then Prime Minister Tony Blair stated,

“We want to ensure that crime doesn’t pay. Seizing criminal assets deprives criminals and criminal organisations of their financial lifeblood. The challenge for law enforcement will become even greater as new technologies hide the money trail more effectively. We must ensure that law enforcement is ready to meet the challenges.” (Cabinet Office, 2000: 13).<sup>8</sup>

Legislation to facilitate asset-focussed interventions existed prior to 1999.<sup>9</sup> However, following the Prime Minister’s statement a dedicated legal regime was developed in the UK to facilitate such approaches, particularly through the Proceeds of Crime Act 2002 and the various legal instruments that have amended it in the period since.<sup>10</sup> Strategies, policies, legal frameworks and instruments for asset-focussed interventions similarly developed around the same period in other jurisdictions (see European Commission, 2016).

Asset-focussed interventions against organised crime in the UK encompass a range of activities, including:

- a. *Cash seizure, detention and forfeiture*: where cash, cheques or bonds that total £1000 or more can be seized if they are suspected of being the result of crime, or of being used to commit crime. An application can then be made for the cash to be detained and forfeited under POCA in a civil court.
- b. *Confiscation*: where an individual convicted of committing a crime is also suspected to have benefited financially from that crime and legal action is taken to confiscate the assets acquired from criminal activity. The role of the confiscation process is to recover the value of the assets that have benefited that individual, such as cash, properties or vehicles. This value can be recovered following a successful conviction by applying to the court for a confiscation order. If the order is granted the court will assess which assets can be confiscated, and the value of those assets.
- c. *Civil recovery*: where assets can be recovered from an individual through the civil, rather than criminal courts. The process is similar to the confiscation process, except that in this case the individual does not have to be convicted of an offence for the assets to be recovered. To be confiscated the assets only

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<sup>8</sup> Almost a decade after Prime Minister Blair’s comment, the commitment to ensure that crime, and particularly organised crime, ‘does not pay’ remained important political rhetoric in Europe (see European Commission, 2008).

<sup>9</sup> See, for example, the 1986 Drug Trafficking Offences Act in England and Wales, which itself was a direct consequence of the failure of the state to confiscate a significant sum made through drug trafficking in a specific case.

<sup>10</sup> Including, for example, the Serious Organised Crime and Police Act 2005, the Serious Crime Act 2007 and the Serious Crime Act 2015.

- have to be proved to result from criminal activity on a balance of probability rather than an offence having to be proved beyond reasonable doubt.
- d. *Taxation*: recovering taxes on criminal earnings that have been identified and can be assessed for tax (for example income tax or corporation tax). This is another way of targeting profits from crime without having to pursue a separate criminal conviction.
  - e. *Seizure and removal of property, including vehicles*: undertaken on the basis of a range of legislative powers, including those provided in the Misuse of Drugs Act 1971, the Powers of Criminal Courts (Sentencing) Act 2000, the Sexual Offences Act 2003 (College of Policing, 2014a and 2014b).<sup>11</sup>

## **META-ANALYSIS, REALIST SYNTHESIS AND EMMIE**

This review was conducted in support of the *What Works Centre for Crime Reduction*, hosted by the UK College of Policing, which aims to promote and facilitate evidence-based policing. This work forms part of an overall current in the UK towards the promotion of an evidence-based policy ‘what works’ agenda, which has in turn brought more attention to the question of a hierarchy of social research methods, and in which quantitatively based systematic reviews form a significant component (Gelsthorpe and Sharpe, 2005).

Systematic reviews – which have traditionally come to replace traditional narrative reviews – have developed a growing role in criminology (Murray et al, 2009: 2). Systematic reviews frequently involve the pooling of findings from primary studies; an approach known as meta-analysis, which synthesises the results of several studies into a single quantitative estimate, such as an overall effect size (Petticrew and Roberts, 2006: 19). At a basic level, in considering evidence-based policing, effect size is the extent to which something – for example an intervention, tactic or initiative – ‘worked’. There are, however, clear limitations of applying effect size to real world contexts, particularly in relation to the quality of evidence. As Johnson et al (2015) have noted, a systematic review depends on the quality of the primary evaluations on which it is based.

The aim of the present systematic review was to support evidence-based policy by assessing the effectiveness of asset-focussed interventions in reducing organised crime by using a systematic approach to identify all studies, reports or documents that were relevant to the research question and which could be incorporated into a meta-analysis. In the contemporary context criminal justice and policing practitioners seek to use research – and may be under pressure to use research – in order to make cost-effective decisions. Petrosino and Lavenberg communicate the advantage of systematic review and meta-analysis therein,

“Research necessarily is but one input into that process... But research evidence can and should be an important consideration in policy and practice choices made by decision makers in criminal justice. Given the explicitness, comprehensiveness, and rigor of a systematic review and meta-analysis, they should be the starting point for considerations about “what the science says”

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<sup>11</sup> Recognising King and Walker’s assertion (2014: 6-7) that there is a degree of confusion in the terminology of such approaches; a problem compounded by diverse approaches in different jurisdictions, as well as at the international level (see also Hendry and King, 2015 and Vettori, 2006).

about what to do to reduce crime and increase fairness in the criminal justice system.” (Petrosino and Lavenberg, 2007: 11)

This approach was the starting point for our attempt to assess if asset-focussed interventions are effective in reducing the level of threat and harm posed by organised crime groups and networks. We made attempts to gather all available statistical outputs measuring intervention and outcome, and we also sought to move beyond this statistical meta-analytical approach. The idea was to combine both meta-analysis (where possible) and realist synthesis in an effort to further contextualise the conditions under which specific interventions are, or are not, effective. Realist synthesis problematises the simple assertion that some programmes ‘work’, and instead emphasises that it is the underlying resources that they offer that generate change (Pawson, 2002: 342). This combined perspective is not unique to this systematic review, and has been central to the overall research programme in the *What Works Centre for Crime Reduction* in its attempt to provide better evidence for better policing (see Sidebottom et al, 2015).

In the review of asset-focussed interventions to reduce organised crime we are guided by a recently developed framework that operates in accordance with the acronym ‘EMMIE’. Recognising that even systematic reviews can vary in quality – and in ways that may be problematic for policymakers and practitioners who want to improve their decision making – Johnson et al (2015) explored existing efforts to assess the quality of evaluation evidence and presented a framework to enable an assessment of the quality of systematic reviews of crime prevention initiatives, and to inform future such reviews. This EMMIE framework operates in accordance as provided in the table below.

<b>Acronym letter</b>	<b>Component</b>	<b>Description</b>
E	Effects	The overall effect direction and size (alongside major unintended effects) of an intervention and the confidence that should be placed on that estimate.
M	Mechanisms/mediators	The mechanisms/mediators activated by the policy, practice or program in question.
M	Moderators/contexts	The moderators/contexts relevant to the production/non-production of intended and major unintended effects of different sizes.
I	Implementation	The key sources of success and failure in implementing the policy, practice or program.
E	Economic analysis	The economic costs (and benefits) associated with the policy, practice or program.

Table 1: EMMIE framework – adapted from Johnson et al (2015)

Each of these components can be evaluated in accordance with a five-point scale for assessing quality on each dimension (Johnson et al, 2015: 465-466). A key principle of the EMMIE framework is that it can be used retrospectively to appraise an existing systematic review in order to offer an assessment of its quality, in an effort to guide decision-making. However, the EMMIE framework can also be used prospectively within systematic reviews: as an approach to assist in the identification of important

information and as a structure to assist in the organisation of findings.<sup>12</sup> We have deployed EMMIE in this prospective fashion.

Additionally, and acknowledging Lum et al's (2012) research that indicated the difficulties of translating the findings of evidence-based policing into digestible and familiar forms for practitioner use, the findings of this systematic review will be included in the *What Works Centre for Crime Reduction* online toolkit. This toolkit is freely available online to practitioners and the public. Providing easy access to the crime reduction evidence base allows users to consider evidence on the implementation, impact and cost of different interventions, and use this to help shape their crime reduction efforts.

## METHODS

This section details the methods used in this systematic review. It describes the strategy for identifying studies, the databases interrogated and the search terms employed, inclusion and exclusion criteria, data extraction and management processes, methods of analyses to be performed as part of the realist synthesis processes, and an account of the absence of statistical meta-analysis in this review.

The following process was used to identify, locate and select studies for this review.

- a) *The study must report on the reduction of organised crime through the use of asset-focussed interventions.* We included studies on asset-focussed approaches undertaken by any stakeholder. We also interpreted reduction widely, in line with our discussion of threat/harm above, to include for example, the disruption and deterrence effects of (temporary) asset seizure, as well as (permanent) asset recovery. Studies that reported on the effects of asset-focussed approaches in isolation or as part of a wider package of interventions to reduce organised crime were also included.

To be included for meta-analysis, a study had to satisfy point a) above and:

- b) *Report at least one quantitative crime outcome measure.* Outcome data could comprise official measures (police recorded crime, intelligence or performance data; government data; data from international organisations) or unofficial measures (self-reported levels of victimisation, offending, or public perceptions).
- c) *Report original research findings.* Systematic reviews were not to be included. The quantitative findings for any single study were to be incorporated only once, even if reported in multiple publications.
- d) *Employ a research design that allowed for the computation of a reliable effect size* (i.e. an experimental or quasi-experimental evaluation design including a control group or a suitable single study interrupted time series design with multiple observations conducted both pre- and post-intervention).

Randomised experiments are often recognised as the gold standard of evaluation evidence, including in criminology.<sup>13</sup> A randomised experiment can establish the effect

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<sup>12</sup> Such an approach was demonstrated in Sidebottom et al (2015).

<sup>13</sup> For a further discussion see Cartwright (2007), and in the context of criminology see Hough (2010).

of an intervention more convincingly than alternative quasi-experimental, non-randomised, evaluation methods (Farrington, 2003: 218-19). Nevertheless, the traction of experimental and quasi-experimental studies within criminology has not been as sustained as in other disciplines, such as medicine or psychology (Farrington, 2003). In the context of any criminological enquiry, therefore, this may result in only a small number of studies being eligible for meta-analysis. We anticipated facing some similar challenges to those outlined by Lum et al (2006) in their systematic review on counter-terrorism evaluation research. In Lum et al's study, these challenges included, despite the investment of significant resources and a proliferation of multiple forms of intervention: few evaluations of such interventions; a variety of outcomes; multiple points at which effectiveness could be measured; and difficulties in gauging effectiveness compounded by secrecy in data (Lum et al, 2006: 491).<sup>14</sup> Reflecting on Lum et al's issues in relation to our study, we can concur with previous writers that much of the current literature on organised crime appears descriptive, with few empirical studies, and this has been a source of frustration for practitioners (Stovin and Davies, 2008: 497). As Hobbs and Antonopoulos (2014) have remarked, most organised crime policies have been implemented without the 'impediment' of empirical research, which they realise can be a difficult, but necessary endeavour, for a variety of reasons.

Items *b*, *c* and *d* did not form part of the inclusion criteria for the realist synthesis. To be included in our realist synthesis of asset-focussed interventions, studies had to satisfy point a) above – report on reducing crime through the use of asset-focussed approaches – *and at least one* of the items below:

- e) Report substantive information relating to crime-related causal mechanisms activated by asset-focussed interventions.
- f) Report substantive information relating to the conditions needed for asset-focussed interventions to activate crime-related causal mechanisms.
- g) Report substantive information about the implementation of asset-focussed interventions.
- h) Report substantive theoretical content concerning asset-focussed interventions and crime-related outcomes.

The requirement that in order to be included in the realist synthesis, studies had to satisfy point a) and report on the reduction of organised crime through asset-focussed interventions, is a limitation of this research. It restricts the pool of literature available to the realist synthesis to items which meet that reduction-oriented criteria. The rationale for doing so is to focus what would otherwise be a very large amount of literature.

### **Search strategy for identifying studies and methodological approaches**

We used four search tactics to identify relevant studies:

1. A keyword search (see Appendix 1 and 2) of relevant electronic databases, including dissertation databases.
2. A keyword search (see Appendix 1 and 2) of relevant grey literatures.
3. A keyword search (see Appendix 1 and 2) of other sources, and the bespoke

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<sup>14</sup> Moreover, the identification of common challenges in research on both terrorism and organised crime was facilitated by what has been termed the 'redesignation of serious and organized crime as matters of national security concern' (Sheptycki, 2007b: 71). Also on this topic see Harfield (2008).

- searching and appraisal of relevant academic journals.<sup>15</sup>
4. Citation searches of selected key sources.

No date restrictions were applied, although the systematic search process finished in 2015, so later studies are only included where they came to the attention of the authors in the writing-up process. Only studies in English were considered as available resources limited our ability to search and translate non-English studies.

#### *Electronic databases*

The following electronic databases were interrogated in the course of this review:

- 1) Proquest (all databases, peer reviewed)
- 2) Proquest dissertations and theses
- 3) SCOPUS
- 4) Web of Science
- 5) Informit
- 6) Westlaw
- 7) Social Care Online
- 8) EBSCOhost (Business Source Premier, EconLit, ERIC, PSycINFO, SocINDEX with Full Text, eBook collection).

#### *Grey literature*

In collaboration with Phyllis Schultz, an information specialist and librarian at Rutgers University in the United States, the publications of the following government, research and professional agencies were searched:

- 1) Center for Problem-Oriented Policing (Tilley Award and Goldstein Award entries)
- 2) Institute for Law and Justice
- 3) Vera Institute for Justice (policing publications)
- 4) Rand Corporation (public safety publications)
- 5) Police Foundation
- 6) Police Executive Research Forum
- 7) The Campbell Collaboration reviews and protocols
- 8) Urban Institute
- 9) European Crime Prevention Network
- 10) Swedish National Council for Crime Prevention
- 11) UK Home Office
- 12) UK College of Policing (Polka)
- 13) Australian Institute of Criminology
- 14) Swedish Police Service
- 15) Norwegian Ministry of Justice
- 16) Canadian Police College
- 17) Finnish Police (Polsi)
- 18) Danish National Police (Politi)
- 19) The Netherlands Police (Politie)

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<sup>15</sup> These were *Police Practice and Research: An International Journal* and *Policing: A Journal of Policy and Practice* which, unlike most criminology journals, do not routinely feature in electronic databases and were therefore searched electronically in addition to the databases undertaking meta-searches (see Sidebottom et al, 2015).

- 20) New Zealand Police
- 21) US National Institute of Justice

The use of an information specialist to interrogate the grey literature – that is to say reports, research and other literature published outside of academic outlets – reflects the advice set out by other researchers using similar methods to ours (Tompson and Belur, 2016: 203).

#### *Other sources*

While the grey literature search also involved the interrogation of Google, Google Scholar and Google Books using the pre-defined search terms, a series of manual keyword searches of these resources was also conducted by the researchers in order to ensure that the search strategy and results were as comprehensive as possible.

Additionally, every issue of the journal *Trends in Organized Crime* – from the first issue to volume 19, issue 2 – was located and interrogated in order to identify any studies of potential relevance. In particular each issue was searched for the authoritative publication monitor ‘Recent publications on organized crime’, collated by Klaus von Lampe, which was subsequently screened.<sup>16</sup>

Ultimately, the literatures from both the electronic database and grey literature searches were collated and assessed for their engagement with the evaluation of asset-focussed interventions. This produced a focussed and relevant list of both i) key authors, and ii) key sources (for example journal titles) in this area of enquiry. The publications lists of these individual authors and the relevant sources were then, where possible, manually searched in order to locate any further studies that could be relevant to the research aims. This was a snowballing exercise, limited in scope by the capacity of the research team to follow relevant leads.

#### *Data extraction*

For those studies eligible for meta-analysis and realist synthesis, the following information was extracted where available:

- 1) Study identifiers (title, author(s), year, publication status)
- 2) Location (Country, Region, State, City)
- 3) Type of asset-focussed intervention(s)
- 4) Whether asset-focussed interventions were implemented in isolation or as a package of crime reduction measures
- 5) Context in which asset-focussed interventions were implemented (such as history/extent of organised crime activities, nature/maturity of legal regime supporting such interventions, cf. the *moderators* in EMMIE)
- 6) Causal mechanism through which the intervention is expected to work (cf. the *mechanism* in EMMIE)
- 7) Research design (randomized experiment, quasi-experiment, and so forth)
- 8) Pre and post outcome measure statistics (implementation and control areas, cf. the *effects* in EMMIE)
- 9) Statistical test(s) employed

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<sup>16</sup> The section title ‘Recent publications on organized crime’ was used from 2007, and remains in use to date. From 1995 to 2006 similar information was contained within issues of the journal, but under a section of varying nomenclature, and incorporating broader events, trends, and developments in this field of study.

- 10) Information on implementing asset-focussed intervention, including costs (cf. the *implementation and economics* in EMMIE).

#### *Meta-analysis and realist synthesis*

While we had a proposed approach to meta-analysis based on the work of Lipsey and Wilson (2001) and Sidebottom et al (2015), there is no value in going into it at any length here since there were no studies in the sample which satisfied the inclusion criteria for this statistical approach to defining an effect size, and ultimately the method was not used. No studies in the sample used quantitative methods to measure outcome variables in the reduction of organised crime as a consequence of asset-focussed interventions. Therefore we will concentrate on describing the realist synthesis method used.

In contrast to the quantitative approaches and assumptions of meta-analysis, realist synthesis recognises that the context may not always be captured in all its subtlety by quantitative methods (Pawson, 2013: xv-xvi). Realist synthesis certainly demands an ability to deal with complexity, but the rewards of this approach include the potential for more pragmatic conclusions than those approaches conventionally deployed in systematic reviews (Rycroft-Malone et al, 2012). Beyond an appreciation of context and complexity, particularly as they relate to implementation and mechanisms, realist synthesis differs from meta-analytical approaches in that it is particularly concerned with issues of theory development. Commenting upon the requirement to understand ‘what works, and why’ in research fields including criminal justice, Kieran Walshe outlined the rationale for a realistic approach to evaluation,

“Researchers in these fields have largely abandoned the experimental method, in favour of theory-driven approaches to evaluation. In brief, theory-driven evaluation first attempts to map out the programme theory lying behind the intervention and then designs a research evaluation to test out that theory. The aim is not to find out ‘whether it works’, as the answer to that question is almost always ‘yes, sometimes’. The purpose is to establish when, how and why the intervention works, to unpick the complex relationship between context, content, application and outcomes, and to develop a necessarily contingent and situational understanding of effectiveness. The researchers seek theoretical rather than empirical generalizability – the ability to transfer theories from the research setting and bring them to bear in often quite different combinations of context, content and application.” (Walshe, 2007: 58).

The inclusion of a realist approach in this systematic review reflects the view that this is part of the repertoire of evaluation methods (Pawson, 2013: 13). For the purposes of this review realist synthesis involved at least two members of the research team reading the full text of all identified research articles deemed relevant to asset-focussed interventions to reduce organised crime. For each article, the research team discussed whether information was reported on the design, deployment, duration, outputs and outcomes of such interventions. This information was then used to help develop and refine working theories for asset-focussed interventions as a method for reducing the threat and harm from organised crime.

Lawrence Sherman (2009) has highlighted how the crucial challenge to experimental criminology is the means by which research results – even when accepted as true – may be translated into widespread practice. Reflecting on Sherman’s assessment, one can



support the claim that the next phase of evidence-based policing requires both scholars and practitioners to move from lists of specific studies about ‘what works’ to using that information strategically. This necessitates developing generalisations or principles on the nature of effective police strategies and translating the field of police evaluation research into digestible forms that can be used to alter police tactics, strategies, accountability systems, and training (Lum et al, 2011). In short, it requires an engagement with theory building and EMMIE, two areas in which realist synthesis can add considerable insight.

## **RESULTS**

This section reports the results of this review. It begins by describing the number of studies identified through the search strategy and how many were considered eligible for meta-analysis (0) and realist synthesis (104). The subsequent analysis and synthesis is organised around the EMMIE framework.

### **Search results and screening**

Our interrogation and evaluation of academic and grey literatures was undertaken mindful of the assessment over a decade ago that the available literature is ‘modest’ in size and that,

“The criminological and ‘grey’ policing literature contains very few examples of evaluated efforts to reduce organized crime or, for that matter, to reduce any sophisticated forms of crime for serious economic gain.” (Levi and Maguire, 2004: 407).

Our search strategy initially identified 7671 potentially eligible records (once duplicates were removed). The title and abstract of identified studies were screened to determine eligibility in accordance with the inclusion and exclusion criteria.

#### *Electronic databases*

The literature search undertaken as outlined above provided 7110 studies, reports or documents for assessment against the inclusion and exclusion criteria. A database was constructed that included these 7110 studies, reports or documents in order to record, organise, and assess them in accordance with the specified inclusion and exclusion criteria. This database enabled the allocation of a study, report or document for meta-analysis or realist synthesis, as well as facilitating data extraction from each case.

#### *Grey literature*

The grey literature search undertaken as outlined above provided 489 studies, reports or documents for assessment against the inclusion and exclusion criteria. These items of grey literature were entered into a database following the format outlined above.

#### *Other sources*

The other sources search undertaken as outlined above provided 72 studies, reports or documents for assessment against the inclusion and exclusion criteria. Again, these other sources were entered into a database following the format outlined above.

The following flowchart provides a summary of the study selection process.

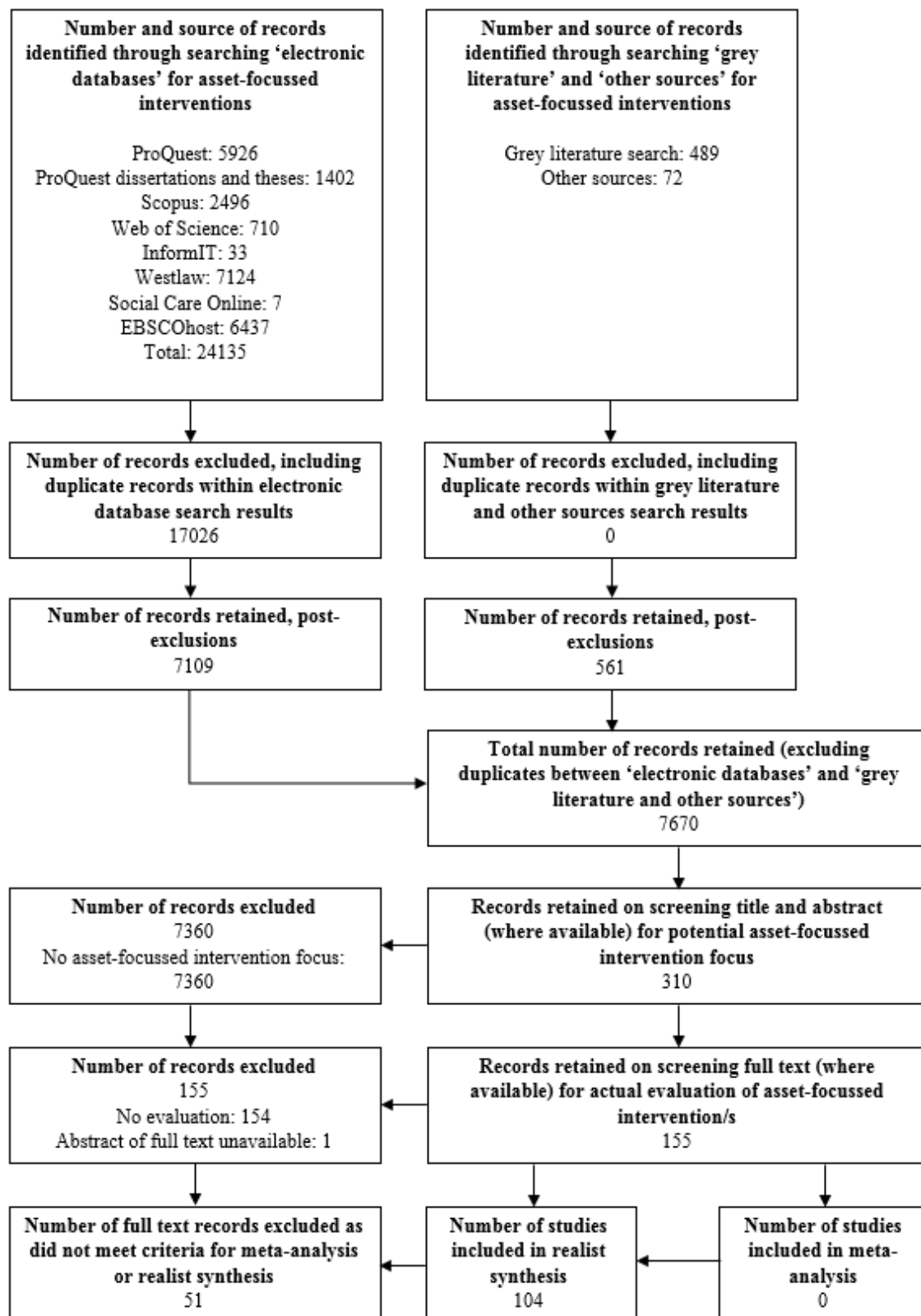


Figure 1: Flowchart of study selection

The study selection process initially identified over 24500 records. The process to narrow down these results began with the removal of duplicates and a sweep of the records that retained studies if, upon an initial screening of the title and abstract, they pertained to the financial aspects of organised crime. Although adopting an inclusive approach, this

reduced the number of records retained to less than 8000. A further screening of the title and abstract of these retained records was conducted to identify any studies that focussed specifically on asset-focussed interventions, reducing the number of retained records to just over 300. The full text of these studies was screened, where available, and studies were retained where there was evidence of an evaluation of asset-focussed interventions. This reduced the records retained by just over half. These 156 studies were then assessed for their eligibility for meta-analysis and realist synthesis, on the basis of the aforementioned criteria. Ultimately, no studies identified through the study selection process met the full criteria for meta-analysis. A further discussion of this is included in the following section. Just over 100 studies met the criteria for inclusion in realist synthesis, and form the bulk of the data for analysis and synthesis in this systematic review, which is structured in accordance with the EMMIE framework.

## EFFECTS

### *The overall effect direction and size (alongside major unintended effects) of an intervention and the confidence that should be placed on that estimate.*

This section of the review addresses the question of the effectiveness of asset-focussed interventions in reducing the threat and harm from organised crime.<sup>17</sup> The criteria for meta-analysis recognised, but sought to move beyond, the widely-accepted evidence hierarchy in enhancing the evidence-base for decision makers, in which the ‘gold standard’ is randomised controlled trials (RCTs).<sup>18</sup> RCTs are generally privileged as they ‘create equivalent experimental and control groups by the blinded random allocation of subjects to one or the other, blinded allocation of treatment/intervention to the experimental but not control group, and blinded comparison of changes in the two groups to ascertain the effect size (if any) of the intervention provided in the experimental group’ (Tilley, 2016a: 305). However, several other research designs were also considered especially relevant in this hierarchy of evidence, particularly including quasi-experimental approaches. The identification of studies deploying such experimental or quasi-experimental research designs in the evaluation of asset-focussed interventions was a priority, but not exclusive, focus of this systematic review. This recognises the view in the available literature that the collection of evidence on the effectiveness of asset-focussed interventions in practice is likely to be a challenging task (Hamran, 2016: 167). Reflecting these challenges, and the criteria for inclusion in meta-analysis, no studies were located that fully met these conditions and could therefore be considered suitable for a rigorous meta-analysis.<sup>19</sup>

### *Weak research design and limited quantifiable ‘output’ measures*

The final criterion for inclusion in meta-analysis, concerning the employment of a research design that allowed for the computation of a reliable effect size, proved the most

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<sup>17</sup> Such an exercise is particularly important in jurisdictions where the legislation underpinning these practices may be under review with a view to increase such powers, absent any evaluation of the effectiveness of the current regime it seeks to ‘enhance’ (King, 2014: 142-143).

<sup>18</sup> Reflecting Tilley’s assertion that “the received wisdom suggesting that clinical trials/RCTs provide a gold standard for all other evaluations should be rejected” (Tilley, 2016a: 317); he continues that such approaches have an important role to play in evidence-based policy, but within a wider complex of other forms of research and evidence collection.

<sup>19</sup> This reflects a wider omission in the study of organised crime in terms of using experimental methods. See, for example, the absence of any such studies in one of the premier academic outlets for work of this type, the *Journal of Experimental Criminology*.

challenging standard for the studies uncovered through the search strategy and study selection process. This criterion ultimately created a high standard which none of the identified studies met. This reflects the assessment previously made that much of the evidence pertaining to the efficacy of strategies and interventions against organised crime is descriptive and anecdotal, and studies adopting sophisticated, statistical research designs are ‘virtually non-existent’ (Gabor, 2003: 55). Given this paucity of research suitable for meta-analysis, a number of studies within the literature base suitable for realist synthesis were examined to offer commentary to identify the underlying causal mechanisms of such approaches and to explore how, and under what conditions, they work. Such an exercise also allows an identification of the current gaps in the literature that preclude any robust meta-analysis based on the criteria used in this systematic review.

Most of the studies that deployed output statistics or measures were based on an *implicit assumption* that the reduction of organised crime through the use of asset-focussed interventions had been achieved if certain ‘output’ measures were evidenced. They did not report on ‘outcome’ rather than ‘output’ measures, in other words on the actual real-world reduction of threat or harm in relation to organised crime as opposed to the amount of assets which were the focus of the intervention. That is, there was no reporting of an explicit goal of the reduction of organised crime *beyond* such process outputs. This implicit assumption of the outcome effectiveness of process outputs reflects both a lack of recognition of the need for research on effect (which is instead taken for granted) and the difficulties of identifying a robust quantitative crime outcome measure as it relates to organised crime (Castle, 2008: 135).

The challenges in evidencing and measuring impact on organised crime reflect two inter-related issues: the challenges of researching organised crime itself (see Hobbs and Antonopoulos, 2014) and the lack of available data in the public sphere (compared to that held under various conditions of secrecy by policing and law enforcement agencies).<sup>20</sup> These inter-related issues contribute to the subsequent reliance on limited quantifiable ‘output’ measures. This is to the detriment of identifying and understanding actual outcomes in the ‘real-world’. The distinction between outputs and outcomes is vital. In his exploration of anti-mafia policies in Italy Antonio La Spina has remarked,

“A proper evaluative analysis should concentrate on individual measures, assessing for each of them the relationships between inputs of resources, process features, outputs and outcomes. The expected outcome is the eradication of the mafia, or at least a remarkable weakening of it, in the medium term. One might think that if the bosses are arrested and kept in jail, we already have an important outcome. This might be, but normally the reverse is true... Therefore, in my view, it is better to consider seizures, forces residences, arrests, sentences and the actual enforcement of a strict incarceration regime not as outcomes, but rather as outputs.” (La Spina, 2004: 658-659).

Moreover, as Mike Levi has noted of the evidence in relation to asset-focussed interventions,

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<sup>20</sup> It is worth noting here that the organised crime researcher Klaus von Lampe has remarked that the study of organised crime is fundamentally similar to other areas of social science research in that a principal challenge is one of finding good data (von Lampe, 2008: 28).

“Many measures used are activity measures – such as seizures of drugs or, for that matter, proceeds of crime or even arrests of major offenders – rather than final outcome measures, such as lower narcotics consumption. Although final outcome measures tend to be demotivating because demonstrating effects is often hard, they are important.” (Levi, 2003: 222).

As is explicit in Levi’s assertion, it is crucial to recognise that such measures, as a form of official data on organised crime, are a result of policing activities, which are in turn the result of resource restrictions, the competency of agents and actors in this field, organisational priorities and wider political concerns (Hobbs and Antonopoulos, 2014: 99). Similarly, Mackenzie and Hamilton-Smith have highlighted how, when explicitly considering performance measures and targets that drive the policing of organised crime,

“Often these ultimately constitute numerical targets – amount of drugs seized; number of key nominals arrested, etc. – which are crude and which the research evidence base on the reduction or prevention of organised crime activity does not support as being suitable measures of success.” (Mackenzie and Hamilton-Smith, 2011: 7).<sup>21</sup>

There are also recognised issues with public availability, and quality, of such data. As Savona and Richard, for example, have lamented (2015: 246) there is an absence of systematic information on the amount or value of criminal assets seized, frozen and confiscated across Europe.

Even if data on ‘asset recovery’ outputs was systematic in its design, reliable in its methods, and publicly available, it makes little sense to consider this as a measure of effectiveness without further information to contextualise such data. As Naylor colourfully outlined, when the current asset recovery regime in the UK was initially taking shape,

“Assuming the value of seized criminal wealth could be satisfactorily calculated, it has to be compared with the total amount of criminal wealth in existence. Even the roughest guess-timate of that requires several steps.... The problem here is that attempting to estimate criminal income flows is a task that would have caused Hercules to apply for early retirement.” (Naylor, 1999: 16).<sup>22</sup>

The (over-)reliance on outputs over outcomes has been a persistent problem in accurately measuring police performance, especially given the propensity for such measures and statistics to be affected by internal police management dynamics (see Sonnichsen, 2009). Specifically in relation to asset-focussed interventions Mackenzie and Hamilton-Smith

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<sup>21</sup> More critically, Harvey and Lau (2008: 287) have remarked upon how UK authorities, conscious of both their inability to demonstrate the effectiveness of counter measures against organised crime and the need to demonstrate ‘value of money’ have turned to outputs such as ‘asset recovery’ as a performance measure. They are not supportive of policy on asset recovery that appears to them to be ‘basically driven by financial targets’, and have concerns relating to the absence of proof that such sums exist to be recovered and that estimates of sums are based on ‘naive and unsophisticated extrapolation’ (Harvey and Lau, 2008: 289).

<sup>22</sup> In 2007 Stephen Prichard attempted to devise a methodology for estimating the value of criminal assets available for seizure, which was published in a Home Office publication (see Dubourg and Prichard, 2007).

have critiqued the asset recovery ‘pipeline’ in law enforcement, and the problems associated with reliance on this pipeline as a measurement of impact. They state,

“Asset recovery performance indicators are fairly uniformly centred in the UK on some quantification of outputs along the asset recovery “pipeline” or around a final figure relating to the amount of assets put into the “tin box” at the end of the pipeline... Aside from the inflated starting target, there are a number of complex factors that contribute further to the steep attrition in the asset recovery pipeline. Many of these sit outside the control of the police (e.g. plea bargaining; a lack of ambition or skills on the part of prosecutors; the depreciation of assets before a case comes to court; the effective use of strategies by offenders to frustrate proceedings even after confiscation orders have been imposed, etc). Asset recovery targets tend to simply emphasise the crude value of assets reported, constrained, or confiscated. They take no account of the quality or strategic value of what assets or whose assets are targeted.” (Mackenzie and Hamilton-Smith, 2011: 15-16).

The authors here continue that, as success in this area is increasingly defined by harm reduction, a new approach to performance is required that is not reliant on such basic output measures.

In the period since 2011 serious organised crime group mapping in UK law enforcement has developed significantly, and become more routinely embedded in policing practices (see Levi and Maguire, 2011; Cavanagh et al, 2015). It is likely that such sophisticated processes in the policing of serious organised crime will have increased the level of knowledge and awareness of how asset-focussed interventions have impacted upon organised crime groups; for example in understanding how they have contributed to dismantling, disrupting, or deterring organised criminals, crime groups, and criminal networks. However, any such knowledge of the crime reduction impact of asset-focussed interventions remains compartmentalised in confidential circles, failing to penetrate the public sphere and mainstream criminological research. Producing evidence of the outcomes of such approaches – which may even be only partial in creating the conditions for crime reduction (Levi, 1997a: 3) – should be critical to the future research agenda on organised crime. As Jackie Harvey (2014: 201) notes specifically in relation to the Serious Organised Crime Agency (SOCA, now subsumed into the National Crime Agency), it would be valuable for such agencies to open the door on asset recovery to inform future research in this area. Whilst the experimental method is not suitable to answer all criminological questions, opportunities exist to work in partnership with operational agencies to develop and test many theoretical ideas about reducing crime and the harm that it causes, as well as to evaluate interventions (Strang and Sherman, 2012: 395).

Reflecting upon the available evidence-base, the practical effectiveness of asset-focussed interventions thus remains unclear at best. Kruisbergen et al have noted,

“In many countries around the world, ‘follow the money’ has become a key concept in policy plans against crime. The focus has shifted from investigating, arresting and prosecuting offenders to taking away their money... Although asset recovery as a tool to fight organized crime has

received support as well as criticism, empirical research into the follow the money strategy is scarce.” (Kruisbergen et al, 2016: 2).

Furthermore, King and Walker have remarked (2014: 5) that the effectiveness of such approaches and the measurement of their impact remain points of doubt and contention. In 2013 Mike Levi noted, specifically in relation to drug markets, that little is known systematically about the impact of asset seizure and confiscation on the organisation of drug markets, and price and supply, beyond that it upsets offenders who find it harder to regain reputation afterwards (Levi, 2013: 1). It is in this context that some relatively blithe assessments – such as “Asset forfeiture has been and remains a highly effective tool for taking the profit out of crime.” (Lee, 2009: 335) – should be critically considered, particularly given the powerful ideological imperatives that underpin such approaches.<sup>23</sup>

#### *Reviewing systematically, without meta-analysis*

Meta-analyses provide the reader with excellent – that is to say objective, comprehensive, transparent and systematic – evidence on a specific research question, and thus provide a powerful tool for evidence-based policymaking. Nevertheless, it must also be recognised that even where meta-analysis is possible and robust, there remain significant issues in relation to the generalisation of such findings in the context of research in crime and justice; where cultures, contexts, political units and legal systems can limit the extent to which such findings can be simply transferred (Schmucker and Lösel, 2015: 439-440). Given that none of studies identified through the search strategy and study selection process met the criteria for inclusion in a meta-analysis, the sections that follow seek to address the absence of data suitable for meta-analysis (and understanding effect) by exploring the mechanisms activated by undertaking asset-focussed interventions, the contexts relevant to the production of intended effects, and the key sources of success and failure. This will be followed by an appraisal of the economic costs and benefits associated with asset-focussed interventions, based on the literature identified for realist synthesis.

### **MECHANISMS / MEDIATORS**

#### ***The mechanisms/mediators activated by the policy, practice or program in question.***

Whilst the previous section highlighted the importance of understanding the effects that a crime control policy or intervention may have against organised crime, in this case asset-focussed interventions, it is also important to understand *how* such a policy or intervention works (Fijnaut and Paoli, 2004: 1041). Such an endeavour does not

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<sup>23</sup> Compare Lee’s comment here, made in the context of Taiwan, to David Lusty’s assessment that “Conviction based confiscation laws in Australia, like their counterparts in the UK, have proven grossly inadequate to deprive contemporary criminals of their ill-gotten gains” (Lusty, 2002: 351). Similarly, in the UK context Jonathan Fisher QC (2015: 754) has noted that, “It is an open secret that the restraint and confiscation regime in Pt 2 of the Proceeds of Crime Act 2002 (POCA) has failed to meet its declared objective of separating serious and organised criminals from the benefits of their crimes.” Considering the regime in the Netherlands Hans Nelen (2004) highlighted how the ‘high hopes’ of asset-focussed interventions have been unrealistic in terms of their achievements. However, Lee’s assertion is not unique. Transparency International (2015: 1) has stated in a policy paper, “**The confiscation/forfeiture of criminal or illegal assets is considered as a very effective way to fight organised crime, which is essentially profit-driven.**” [emphasis in original]. The wider point underpinning such disagreement is that there is an absence of robust evidence upon which to make convincing claims of the effectiveness of such interventions.

necessarily come naturally to those concerned primarily with effect. As Sherman has noted,

“When experimental criminologists are asked to help evaluate innovations or programs intended to reduce crime or injustice, they are rarely asked if the innovations make any sense in terms of theory. Rather, the question is baldly put to them: does this program work? Often the best response is not empirical, but theoretical: why should it work? What is the theory of cause and effect implicit in the design of the program, and what prior evidence (if any) is consistent with that theory? (Sherman, 2010: 402).”

In considering the causal mechanisms of asset-focussed interventions we are concerned here with how this particular approach, and the range of practices associated with it, produce *intended* effects. Johnson et al summarised the importance of this in noting that,

“A strong primary evaluation will explicate the underlying theory or theories of an intervention, and assemble the relevant data to test it. A strong SR [systematic review] will summarize these theories, and synthesize the available evidence to test them.” (Johnson et al, 2015: 466).

As the previous section highlighted, there is a paucity of evidence from primary evaluations on which to provide an assessment of the outcomes of asset-focussed interventions; however, given how widespread adoption of such policies and practices have become, there is an implicit assumption they do work, based on various theoretical rationales.

#### *From ideology to effectiveness*

As indicated in the previously referenced pronouncement of Prime Minister Blair – and repeated in the rhetoric of various politicians, policymakers and practitioners in the period since (see Police and Crime Commissioner for Derbyshire, 2014; Scottish Government, 2009) – perhaps the most important rationale for undertaking asset-focussed interventions against organised crime has little to do with the instrumental *effectiveness* of such approaches in reducing organised crime. Instead, it is one of the collective denunciation of such crimes through the deprivation of illegally accrued benefits. Constructing and drawing upon now familiar tropes, the motivation to ‘take back’ the ‘ill-gotten gains’ of organised criminals in order to ‘increase public confidence in the criminal justice system’ reflects broader currents of retributive justice (Pelton, 1999) and penal populism (Pratt, 2007) that have increasingly emerged and converged in many contemporary neo-liberal societies. In this context, the public display of assets taken from criminals can constitute a useful public relations exercise for policing and law enforcement agencies.<sup>24</sup> Hans Nelen (2004: 523) considers this overall approach to be the ‘ideological assumption’ for asset-focussed interventions against organised crime, and it is certainly a powerful form of political rhetoric irrespective of whether such approaches actually ‘work’ in reducing organised crime in any meaningful way. As Karen Bullock remarked in 2010, with reference to the theory of deterrence that underpins much thinking in this area,

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<sup>24</sup> However, care must be exercised here in order to avoid potential embarrassment for the participating agency; for example, ensuring that the assets have been taken permanently, and will not be returned to the original owner or owners.



“At the time of writing, there is little evidence regarding the effectiveness of asset recovery as a deterrent to crime. However, it is very difficult to disagree with the notion that acquisitive criminals should be parted from the financial benefits of their crimes.” (Bullock, 2010: 13).

Nevertheless, asset-focussed interventions cannot be solely reduced to an expressive, symbolic politics (Newburn and Jones, 2005) that is unconcerned with matters of effectiveness.<sup>25</sup> Michael Levi usefully, and sceptically, captures the prospective linkage between ideology and effectiveness. He remarked,

“If criminals are convinced that ‘crime does not pay’ and that (if caught) they will be unable to retain their ill-gotten gains, then, presumably, at least some criminals will be deterred from committing such crimes... however, there seems no reason to expect that such confiscation will lead such individuals to abstain from such crimes in the future – it might simply lead to greater determination to ‘get their just desserts’ (as they see them) though, as in snakes and ladders, they may find it hard to get where they were before.” (Levi, 2003: 219).

Levi’s comments reflect that, having moved on from the ‘nothing works’ narrative that had previously come to dominate in the 1970s (Weisburd et al, 2016: 311), criminological and practitioner thinking has become increasingly concerned with ‘what works’ in the context of evidence-based policing.<sup>26</sup> Sherman (2013: 377) summarised evidence-based policing as attentiveness to which tactics and strategies further the ‘police mission’ in the most cost-effective fashion, and where – in contrast to basing decisions on theory, assumptions, tradition, or convention – hypotheses are tested with empirical research findings.

As Cook highlighted,

“The design of cost-effective policy requires good evidence on what works well and, equally important, what does not. Intuition, casual observation, and good intentions are not enough.” (Cook, 2013: ix).

Thinking about evidence-based policing has become increasingly sophisticated in recent times; with scholars arguing that the ‘next stage’ of this paradigm requires the move from understanding specifically ‘what works’ to using this information effectively (Lum et al, 2011: 3). EMMIE is a method for achieving this.

Some justifications for asset-focussed interventions have been identified in relation to the potential impact, or perceived effectiveness, in reducing organised crime. For example, asset-focussed interventions have been discussed as a *deterrent* to those organised

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<sup>25</sup> The linkage between beliefs concerning instrumental effectiveness and ideology were apparent in Michael Tonry’s account of asset forfeiture in the United States, where he suggested in his concluding comments “Forfeiture can be an effective tool in attacking drug trafficking, organized crime, and money-laundering. Depriving such offenders of the property with which they carry out their crimes can make it more difficult for them to commit future crimes and provide economic penalties that may deter them and others. There can be no moral objection to depriving criminals of the fruits of their crimes. (Tonry, 1997: 306).

<sup>26</sup> A shift that Cullen and Gendreau (2001) summarised as a positive change in the criminologist’s ‘professional ideology’.

criminals in the pursuit of financial gain (Fried, 1998; Bowles et al, 2005; Kroeker, 2014) as well as their potential *disruptive* effect on criminal groups, networks, markets and activities (Levi, 1997a and 1997b; Mackenzie and Hamilton-Smith, 2011; Brown et al, 2012; Kirby and Snow, 2016).<sup>27</sup> An additional rationale proposed for why asset-focussed interventions should work is based on their potential to reduce the funds available to organised criminal groups and networks to reinvest in further criminal enterprise (Crown Prosecution Service, 2014). Thomas Naylor (1999) summarises the intention of such justifications for asset-focussed interventions as seeking to remove the motive (profit) and the means (operating capital) from organised criminals, with the concomitant effect of protecting the legitimate economy from criminal infiltration.

Naylor's summary is an alternative way of saying that, in theory, one could expect asset-focussed interventions to directly impact upon:

- a) the *intent* of organised criminals to commit organised crimes, through the disassociation in the minds of organised criminals between illegal projects and significant material gain; and
- b) the *capacity* of a group to commit organised crime, through disruption of funding sources, and a concomitant impact on key areas of activity, such as 'wages' for associates and employees and the bribery and corruption of officials within the criminal justice system and relevant positions beyond (for example ports, licensing and so forth).

Investigative attention is increasingly given towards the identification of criminal proceeds within global money flows and asset holdings – and this bears duties of surveillance and reporting upon financial actors, with breach of these duties being actionable as a criminal offence. Yet despite this increased attention across various bodies, for example through suspicious activity reports (SARs), the reality of the intelligence picture on the ground is that the necessary financial intelligence is 'just not there' to significantly impact upon organised crime (Murray, 2015: 202). The UK regime for collecting and analysing financial intelligence – through the UK Financial Intelligence Unit at the National Crime Agency – is predominantly SARs-based. The effectiveness of asset-focussed interventions against organised crime will depend upon the provision and analysis of financial intelligence that goes beyond SARs, and instead also exploits the intelligence streams (such as covert human intelligence sources) used to tackle other aspects of organised crime, such as the movement of controlled drugs, firearms or people.

Irrespective of such limitations, given the increased attention afforded to, and regulation of, financial transactions, deterrence may also play a factor in mitigating organised crime in the field 'beyond the criminal'; for example, through reducing the opportunities or willingness of actors in the financial sector – particularly amongst specialists such as accountants, bankers, lawyers and so forth – to play a facilitation role in managing and obscuring organised crime profits.

Jackie Harvey (2014: 104) is sceptical of the extent to which the 'scattered evidence' in this area supports some of the mechanisms, or theoretical rationales, for asset-focussed interventions,

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<sup>27</sup> Recognising Sheptycki's scepticism of the concept of disruption on the grounds that it assumes the stability of organised criminal structures, the vagueness of what constitutes disruption, and its unintended consequences which may be harmful (Sheptycki, 2007a: 67).

“The logical reason for asset recovery laws is that depriving criminals of the proceeds of crime will make crime less attractive to commit whilst at the same time providing signals to deter other would-be criminal entrepreneurs. However, there is a growing body of evidence that has suggested that although this tactic makes sense in theory it does not necessarily hold up in practice.” (Harvey, 2014: 201).

The ‘body of evidence’ to which Harvey refers here – especially the work by Alldridge (2003), Reuter and Truman (2005), and Harvey (2008) – is tantalising, but does not provide robust evidence of the absolute *ineffectiveness* of such approaches, or why they would fail in their deterrence functions. Alldridge’s book length study notes the ‘significant and increasing sums’ confiscated in England and Wales in the mid-1990s, but further comments that such amounts are less than originally mooted and small compared to that posited by law enforcement (Alldridge, 2003: 166). Elsewhere Alldridge proposes that, despite the intentions of the UK Government and its agencies to seize ‘as many assets from criminals as possible’, legislation in this area has ‘simply been unsuccessful’, and thus remains symbolic (Alldridge, 2003: 15-16). Reuter and Truman do not explicitly discuss asset-based interventions, but remark that ‘there is no information’ on how the outcomes of money laundering control measures have ‘helped reduce the extent of drug dealing and other criminal activities or even how much it has helped in catching’ offenders (Reuter and Truman, 2005: 59). In evaluating the effectiveness of Australia’s confiscation laws Arie Freiberg and Richard Fox have come to a similar conclusion to Harvey’s assessment above, remarking that – drawing from the ‘limited information’ available – such laws appear to have had a ‘negligible effect’ on organised crime through an inability to raise the costs of such crimes, and that such approaches are ‘sound in theory, but ineffective in practice’ (Freiberg and Fox, 2000: 260-261).

### *Deterrence*

Deterrence features heavily in the various organised crime strategies in the UK (HM Government, 2013; Scottish Government, 2015) and beyond (Australian Government, 2015). Classically, deterrence is considered to work through one of two models. First, general deterrence posits that the prospective effects of legal punishment will dissuade potential offenders from participating in criminal activities. Second, specific deterrence pertains to the direct effects of legal punishment on those who have suffered it, again dissuading them from committing such crimes (see Stafford and Warr, 1993). A relatively recent theoretical work that locates deterrence at the heart of the criminal justice enterprise notes how the framework for effective deterrence depends upon the administration of stiff, quick and reliable penalties (Kennedy, 2009: 1).

Hazel Croall (2004: 50-51) has argued that the deterrent effect of criminal law is often assumed to be greater in financial, corporate and white-collar crime, because potential offenders in these areas are assumed to be rational actors or ‘amoral calculators’, making decisions by calculating the costs of compliance or offending against the costs of prosecution and sanction. It is tempting to apply such an approach to organised crime. For example, drawing a link between deterrence and the rational choice models upon which it is predicated, Cornish and Clarke (2002: 41) consider organised crime to be the ‘rational crime par excellence’: highly planned and organised, directed by committed offenders with strong economic motivations. They note the purposive and instrumental

nature of organised crime, the fact that it mirrors non-criminal markets or business, and is both organised and planned (Cornish and Clarke, 2002: 43). For Liz Campbell,

“Organised crimes and associated offences are seen as motivated by profit and as operating along business lines and logic; thus the relevant actors are seen as motivated rationally and as amenable to deterrence through heightening the potential risk of punishment and lowering the rewards for criminal behaviour.” (Campbell, 2013: 175).

Indeed, deterrence, through both the threat and reality of financial ‘punishment’, remains the primary mechanism through which asset-focussed interventions are justified and expected to work. Naylor (1999: 11) noted that the theory that removing proceeds is the most powerful weapon in tackling organised crime is based firstly on the notion that profit is the motivation, and secondly that eliminating criminal gains acts as a powerful deterrent. Bullock (2014) and Bullock and Lister (2014: 48) similarly noted this deterrent function of such approaches. In international contexts, deterrence has been characterised as ‘a key justification for asset recovery’ (Carr and Jago, 2014: 212), which may, given the intractability of organised crime and persistence of organised criminals, only be fully effective over a long period of time (Arlacchi, 1984).<sup>28</sup>

However, the logic of achieving deterrence through asset-focussed interventions has proved to be ‘problematic’ and a ‘profound weakness’ in this overall strategy (Rider, 2007: 22). Discussing deterrence in relation to confiscation in Australia, Freiburg and Fox (2000: 245) noted that not all criminals make rational choices based on a clear assessment of the probable consequences of their actions, thus making it exceedingly difficult to disentangle rational indicators of deterrence from the rather muddy waters of individual choice. Elsewhere, research in organised immigration crime has noted that those arrested for such offences were largely unaware of the prospects of their assets being removed (Webb and Burrows, 2009: 31), a situation which negates any deterrent factor. In general terms, few unbiased tests of the deterrence theory have been conducted, despite the centrality of deterrence to criminological theory and crime control policy for over two centuries (Sherman, 2010: 402), while in specific terms of organised crime, Kleemans (2012) has critiqued the understanding of the organised criminal as a rational, profit-driven entrepreneurial actor motivated by self-interest and operating within an efficient market. Drawing upon the Dutch Organized Crime Monitor – which offers rare access to confidential data on concluded organised crime investigations – Kleemans instead ‘socialises’ organised criminals, understanding their offending in terms of its social embeddedness within a market that is distinct from the licit economy. Issues like that kind of ‘social embeddedness’ are likely to cause problems for any straightforward assumption that the general deterrent effects of law are likely to achieve leverage in the choices made by the individuals in question, if we recognise the social and cultural contexts and pressures which will be weighing on those choices, very possibly in more immediate and subjectively important-seeming ways than the prospects of being the target of asset-focussed interventions.

If asset-focussed interventions are undertaken to provide a deterrent, then the question must be asked as to exactly whom it is seeking to deter? For example, one may undertake

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<sup>28</sup> The logic of deterrence through confiscation has even been invoked by the United Nations in its efforts to promote such measures (United Nations Interregional Crime and Justice Research Institute, 2013).

asset-focussed interventions against established serious organised criminals not with the intention of achieving specific deterrence in this particular case (as they may be resilient to such interventions), but perhaps to provide more general forms of deterrence to emerging organised crime groups, or those who seek entry into such markets. It is important to consider intended outcomes when designing such asset-focussed interventions.

### *Disruption*

Just as deterrence has featured heavily in various organised crime strategies in the UK and beyond, so has ‘disruption’. In fact, in the foreword to the UK *Serious Organised Crime Strategy* Theresa May structured her remarks under the banner of ‘the relentless disruption of organised criminals’ (HM Government 2013: 5). Whilst UK enforcement agencies have been continuing their policies of arrest and prosecution of organised criminals, they have also been expanding their approaches to include further disruption efforts (Hancock and Laycock, 2010: 172). Such approaches are not limited to the UK, in fact disruption through asset-focussed interventions has emerged as a central tenet of approaches to tackling organised crime in Australia (Bartels, 2010).

The existence of disruption, much like the turn towards asset-focussed interventions, reflects a pragmatic shift in tackling organised crime, based upon the perception that traditional approaches have failed. Jerry Ratcliffe’s assessment is indicative of how disruption and asset-focussed interventions share origins and foundations,

“Disruption is vaguely defined – where it is defined at all – and it often suits agencies to claim success through disruption when a legal remedy remains expensive or unobtainable. It is also helpful when the real picture of the criminal environment is elusive, challenging attempts to establish a sense of the target crime against which to evaluate progress.” (Ratcliffe, 2016: 169-170).

Further reflecting these common bases – which include a focus on the criminal, not the crime – Ratcliffe has also remarked that disruption remains a laudable outcome, but one that is difficult to measure (Ratcliffe, 2016: 170). Nevertheless, Kirby and Nailer (2013: 400) have noted ‘growing evidence’ that disruption can be effective if implemented correctly. Mike Levi’s early assessment of the impact of asset freezing and confiscation provisions on the organization of crime, noted,

“The view of most police officers is that confiscation has had little effect on general levels of offending, even though it may have some modest individual effects. Overall, they saw confiscation as a disruptive influence, in confiscating medium/low level offenders’ working capital, making them trade ‘from the bottom’ again, with the greater conviction risks attached to street-level dealing. It upsets them considerably, reduces their status in the eyes of fellow offenders, and is one of the few things that can force them to supply information about their activities if they want to avoid confiscation of those assets of which the authorities have knowledge. This unofficial ‘plea-bargaining’ was viewed by officers as a reasonable tactic to employ during an investigation, but was the source of police concerns about the role played by Crown prosecutors or counsel in ‘giving away’ issues upon which the investigators wished to bargain. Regarding entire organizations, the cases

studied and officers and prosecutors interviewed all expressed similar sentiments. In their confiscation work, they are not targeting whole organizations, nor (with some very few exceptions) the heads of organizations. Thus, their work does not hamper the ability of criminal organizations to conduct their activities. These comments applied even to several Regional Crime Squad (who deal with ‘organized crime’) cases, though the South-East Regional Crime Squad were seeking to target international money-laundering operations, and their cases under restraint and confiscation reflected this. It can also – though this was rare – be a source of obtaining good informants.” (Levi, 1997b: 236).

This summary remains an important underpinning in the expectations of how current asset-focussed interventions and practices are considered to ‘work’, and the challenges involved in achieving real group-level disruption through asset-focussed interventions against one or more key nominals.

### *Diminution*

Asset-focussed interventions have also been justified as a direct form of social compensation for criminality (Lusty, 2002) and an indirect form of reparation by using recovered assets to fund community initiatives (Collins and King, 2013), innovative partnerships (Mazzanti et al, 2016) and other forms of social reuse (Montaldo, 2015).<sup>29</sup> Such arguments in favour of asset-focussed interventions could possibly be read as supporting harm-reduction effects: official recovery of illicit gains may be considered a diminution in the economic harm organised crime causes, while re-investment in communities might deplete social forms of harm and increase positive opportunities for people within those communities. However, the mechanism here is, at best, indirect, and evidence similarly scarce.

## **MODERATORS / CONTEXTS**

### ***The moderators/contexts relevant to the production/non-production of intended and major unintended effects of different sizes.***

In considering the moderators or contexts relevant to the production of effects of asset-focussed interventions we are concerned with the question of ‘where such interventions work best’. Tilley has summarised this strand of EMMIE in more detail as follows,

“Moderators refer to the variables sometimes used in statistical analysis to deal with effects variation in individual studies and across studies in meta-analysis, for example across study designs, recipients, providers or settings, while context is crucial to the realist’s understanding of the contingent activation (or deactivation) of causal mechanisms, due to their dependency

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<sup>29</sup> More controversially – and resonating with accounts, for example, that the revenue from traffic fines are reinvested in government (Makowsky and Stratmann, 2009 and 2011; Hummell, 2016) – asset-focussed interventions have been asserted to have the unintended ‘revenue raising’ effect of funding this particular type of policing activity (Levi and Osofsky, 1995). In their empirical analysis Kelly and Kole (2016) found some statistical support for the proposition that police agencies change the intensity and pattern of policing in response to forfeiture; however, in economic terms these effects were found not to support the proposition that forfeiture provides vital funds and incentives for such policing.

on specific attributes of recipients, providers or settings...” (Tilley, 2016: 309).

Clearly, based on the previous discussion of the lack of experimental or quasi-experimental evidence on the effectiveness of asset-focussed interventions, it is impossible to deal fully with moderators and effect variation; however, the available literature does present some prospective indication of the contexts in which asset-focussed interventions can be expected to activate the underlying mechanisms discussed in the previous section.

#### *Context-mechanism interactions*

Organised crime and the criminals who are involved in activities linked to organised crime are diverse. Variations are apparent not only in the types of criminal activities undertaken, but also in their levels of sophistication. Such variations in the contexts of organised crime – and also the numerous configurations of responses to organised crime – will have impact upon the effectiveness of the mechanisms outlined in the previous section. Archetypal contexts favourable and unfavourable to activating these mechanisms are highlighted in the table below.

<b>Aspect of context</b>	<b>Features conducive to crime reduction through asset-focussed interventions</b>	<b>Features not conducive to crime reduction through asset-focussed interventions</b>
Different types of criminals	Profit-motivated, risk-averse and vulnerable to the removal of particular assets	Complex motivations, risk-taking and resilient to the removal of particular assets
Organised crime covers a wide variety of offences	Crimes undertaken produce significant discernible assets, and which are difficult to launder effectively (unavailability of specialists)	Crimes undertaken produce few identifiable assets, and which can be laundered effectively (through availability of specialists)
Interventions can have varying qualities and processes	Based on robust financial intelligence and specifically targeted against identified, traceable assets – and located in a wider package of interventions	Inadequate financial intelligence to identify assets and target interventions – and undertaken in isolation from any other interventions
Agency capacity is variable	Agency is adequately resourced, with appropriately trained personnel	Agency is not adequately resourced, without appropriately trained personnel

Partners outside the police may offer different levels of support	Awareness of suspicious financial transactions and propensity to report accordingly	No awareness of suspicious financial transactions and lack of propensity to report to authorities
Outcomes are different from outputs	Consideration given to how the intervention will impact on/reduce organised crime activities (through dismantling, disrupting or deterring) and evidencing results beyond the sum of assets (outputs) – and feeding this back to future interventions	No consideration given to how the intervention will impact on/reduce organised crime activities. Results limited to the sum of assets (outputs) and no feedback to future interventions

Table 2: Contextual conditions favourable and unfavourable to asset-focussed interventions producing reductions in organised crime

*Effectiveness within a wider armoury of interventions*

The available literature indicates the ways in which asset-focussed interventions should be considered as a particular resource within a larger armoury of interventions against organised crime. More than this, asset-focussed interventions may in fact be most effective when used within a wider strategy that utilises other forms of intervention. For example, in assessing the efficiency of confiscation as a tool against organized crime Araujo and Moreira (2012) suggest that confiscation has to be connected to further repressive measures in order to be an efficient tool against organised crime. For them,

“This result arises due to the fact that if only confiscation is adopted the higher the confiscation the higher the fraction of the investment that the criminal agent decides to reinvest in the illegal activity in order to compensate the loss due to confiscation... Although confiscation may be an efficient tool against money laundering it cannot be an efficient measure to combat the criminal activity that generates the profit if it is not combined with law enforcement.” (Araujo and Moreira, 2012: 9).

Locating asset-focussed interventions within a wider armoury of interventions against organised crime has the added value of disaggregating this intervention into its multiple constituent approaches, particularly highlighting the opportunities of distinct criminal and civil approaches (see Warchol et al, 1996), including in transnational contexts (Alagna, 2015). Extending the metaphor, Kilching (2001: 264) has proposed that linking criminal and civil approaches to asset-focussed interventions is now ‘the most promising weapon’ in tackling organised crime.<sup>30</sup> In fact, the increasing use of civil, non-conviction based approaches has been linked to the perceived ineffectiveness of criminal confiscation (see Dayman, 2009; Cabana, 2014; King, 2014; Hendry and King, 2015).

<sup>30</sup> Naylor (1999: 3) also considered such legal initiatives as ‘powerful weapons’; although it is important to recognise here Gold and Levi’s reticence in using the terminology of battle, particularly given the rhetoric of the ‘war on drugs’ (Gold and Levi, 1994: 115).



## IMPLEMENTATION

### *The key sources of success and failure in implementing the policy, practice or program.*

The implementation strand of EMMIE is fundamentally practical. It is concerned with how a particular policy, practice or intervention is actually applied; the answers to which are likely to have important implications for those seeking to replicate (and perhaps adapt) these approaches elsewhere. As Johnson et al note,

“For both successful and unsuccessful initiatives, it is important for the practitioner to know what was done, what was crucial to the intervention and what difficulties might be experienced if it were to be replicated elsewhere... practitioners need to know if particular interventions are easy or difficult to implement, if successful implementation is contingent upon particular conditions, and what is liable to impede or facilitate the process.” (Johnson et al, 2015: 468-469).

A detailed consideration of the sources of success or failure in implementing and undertaking asset-focussed interventions is vital. The key sources of success and failure in implementing the policy, practice or program that follow are indicative of where asset-focussed interventions are most likely to be effective, based on the literature reviewed through the realist synthesis. Building upon the deterrence model outlined in the previous section on mechanism, for the implementation of asset-focussed interventions to be effective offenders must believe that the risk of being negatively impacted by such interventions is high enough to be taken seriously, and this can be an issue of implementation. Moreover, building upon recent adaptations in the behaviours of offenders, perhaps the key factor in the success or failure of asset-focussed interventions now rests in the spending and saving behaviour of offenders: if they have little to target or recover then such approaches will be ineffective (see Fleming, 2008). However, there are also important implementation issues relating to law enforcement and policing in assessing the success or failure of such approaches.

### *Broadening specialist knowledge, attuned to the challenges*

A primary precursor to the success of asset-focussed interventions is the broadening of specialist knowledge, attuned to the challenge of implementation in this complex area of criminal activity. A joint thematic review of asset recovery in the UK noted,

“...not all cases with restraint and confiscation potential are identified as such, largely because issues are not mainstreamed into the daily work of frontline police investigators and CPS area prosecutors. This does not appear to be as a result of lack of training or awareness-raising. Rather, there is a feeling that the identification of, and exploitation of cases is a job best left to the specialists, because it is a separate complex area...” (HM Crown Prosecution Service Inspectorate and HM Inspectorate of Constabulary. 2010: 7).

Whilst ‘fighting’ organised crime is considered core to the police officer mission, the skills and knowledge required to successfully implement asset-focussed interventions in this area of law enforcement has been viewed as a specialist function within policing (see Her Majesty’s Inspectorate of Constabulary, 2004). In 1981 in the United States, where

such approaches were pioneered, asset forfeiture was regarded as ‘a seldom used tool in combatting drug trafficking’ (Jones, 1981), but similar criticisms of infrequent implementation have persisted, some of which are related to the complexity of provisions (Kilchling, 2001: 275). Almost a decade ago Peter Sproat outlined the requirement for far greater investment in the capability of law enforcement to maximise the use of the potential of asset-recovery and money laundering interventions (Sproat, 2007a: 184), a situation that was not addressed in his subsequent assessment that such powers were infrequently deployed against organised crime (Sproat, 2009).

Despite calls for greater investment, the ‘mainstreaming’ and routinisation of financial investigation and asset-focussed interventions within policing and law enforcement agencies remains a significant challenge in contemporary practice, which is particularly concerning as these are essential to the effectiveness of such approaches (Leong, 2016: 205). For example, in relation to integrating financial investigation and intelligence work Kenneth Murray has highlighted the measures taken in Scotland to address such challenges,

“An initiative within Police Scotland under the name “Project Jackal” seeks to overcome these traditional difficulties. It rests on the conviction that by providing the necessary stimulus and support to the intelligence gathering engines within law enforcement the gaps in financial and business intelligence can be filled, and the culture can be adapted to make the capture of this material second nature over time, as opposed to an exotic diversion from core intelligence gathering around drugs and other more obviously tangible forms of criminality.” (Murray, 2015: 203-204).

Research in the UK has indicated that financial investigation is often introduced at the pre-arrest stage in an investigation, even although there are opportunities to introduce financial investigation in even earlier stages in such cases. The researcher here, Rick Brown, highlights how the use of financial investigation is seen as a ‘fall-back’ position when investigators have failed to achieve a result using ‘conventional investigation techniques’ such as making enquiries and use of covert methods (Brown, 2013: 265). This reflects the extent to which the financial investigation of organised crime remains outside mainstream policing and thus is under-deployed in the armoury of interventions.

On the requirement to broaden specialist knowledge, Raylene Keightley comments on the ‘daunting task’ facing courts in South Africa who had to ‘give effect to a form of law enforcement that was largely foreign to them’ following the 1998 Proceeds of Crime Act in that country (Keightley, 1999: 95). Summarising these points in the context of the Netherlands, Hans Nelen noted in 2004,

“The confiscation of illegally obtained assets is still considered a fairly low priority among the list of daily tasks. This applies all across the board, from investigating officers to public prosecutors, judges and lawyers. A strong tendency still exists to view criminal cases as separate from confiscation cases, which are seen as cumbersome by-products. This mentality can be traced to a lack of experience, knowledge and skills. It is also associated with the professional culture and organisational context in which the relevant parties concerned operate.” (Nelen, 2004: 529).

A reading of the literature indicates how such issues have persisted over time. In 1993, over a decade before Nelen's assessment, Groos (1993: 134) highlighted, in considering the implementation of asset-focussed interventions in the Netherlands, that training for judges, public prosecutors, support staff and police officers was a priority issue, with measures taken including the creation of a manual to assist public prosecutors. In fact, the issue of training cross criminal justice agencies and actors has been highlighted as an issue across Europe (see Savona and Vettori, 2001: 146-150).

Based on qualitative research in the UK, Brown et al (2012) have noted that financial investigation techniques have the potential to add value to all stages of investigations into organised crime, and investigating officers should routinely assess whether to employ financial investigation techniques in all organised crime cases. Anthony Kennedy (2007: 35) is clear that the effective operation of confiscation legislation is dependent upon 'well-trained investigators and prosecutors'. It has been noted that throughout the criminal justice system there is insufficient awareness of proceeds of crime and its potential of asset-focussed interventions to have an impact on criminal activity (Comptroller and Auditor General, 2013: 7). King and Walker (2014: 8) have, however, noted that asset-focussed interventions have previously been under-utilised but that a focus on the 'money trail' has become a key part of contemporary policing practice.

In relation to confiscation orders alone, the National Audit Office estimated that in September 2015 total debt outstanding stood at £1.61bn (in other words orders made but for which the assets had not been collected) while the HM Courts and Tribunals Service estimate of the amount of that debt that was realistically collectable was £203m. The 'poor implementation of the confiscation order scheme has severely hampered its effectiveness' and the administration of these orders was proposed to be in need of being 'urgently transformed' (Comptroller and Auditor General, 2016: 8). Implementation failures included:

- no coherent overall strategy for confiscation orders with no agreed success measures;
- a flawed incentive scheme and weak accountability;
- a lack of good performance data or benchmarks so support decision-making;
- insufficient awareness of proceeds of crime and its potential impact;
- operational issues such as inaccurate and incomplete data, outdated ICT systems and poor joint working between the different bodies;
- ineffective sanctions for non-payment (Comptroller and Auditor General, 2013, 2016: 6).

## **ECONOMIC COSTS/CONSEQUENCES**

### ***The economic costs (and benefits) associated with the policy, practice or program.***

Decision-makers responsible for authorising the use of any particular intervention will expect not only an assessment of the effect of a particular approach, but also a robust indication of its economic consequences, including the costs – and benefits – associated with the policy, practice or program. As Edwin Zedlewski (2009: 355) has remarked, effectiveness is only half of the answer; the other half is affordability. Arguing in favour of a pragmatic approach to evaluation, Tilley (2016: 305) has noted that decision-makers want to know what to expect by way of impact, what an intervention or programme will cost, and what the returns will be from different options. Yet assessing the economic costs

and benefits of interventions – sometimes referred to as inputs and outcomes – is a difficult and complicated exercise. As Johnson et al have highlighted,

“Estimating costs is complex. Comprehensive costing will include not only costs incurred by those responsible for the policy but also those falling on any third parties implicated in the delivery of interventions, the program participants themselves and those bearing any negative side effects (‘indirect costs’). As programs expand, there are often diminishing marginal costs on those delivering interventions, as set-up and capital costs (‘fixed costs’) are spread over an increasing volume of activity, and so only those *variable costs* that are explicitly associated with increased output (e.g., police time) will increase.” (Johnson et al, 2015: 469).

Despite such difficulties, cost-benefit analysis is becoming increasingly common in crime prevention and criminal justice research and its influence in policymaking has increased concomitantly (Farrell et al, 2012: 56). Nevertheless, challenges still persist, particularly in evaluating police interventions. For example, Horowitz and Zedlewski (2006: 54-55) found in their analysis of 17 diverse police outcome evaluations a tendency to focus on outcomes, but not on inputs; the latter of which would include such measures as the police resources deployed, in terms of both number of people involved and the amount of time spent on particular tasks. As a result, only five evaluations in their sample actually contained the minimal data necessary to support cost-benefit analysis, despite the generous interpretations of the authors to promote inclusivity in such an analysis. The paucity of rigorous and robust cost-benefit evaluations in policing research is likely to reflect the difficulties, challenges and complexities associated with such endeavours. Yet such analyses of asset-focussed interventions seem necessary, particularly given that the potential for ‘asset removal’ to be ‘a cost-effective law enforcement intervention’ was integral to the development of the current regime in the UK (see Cabinet Office, 2000: 6).

Michael Levi (1997b: 19) highlighted that the moves in law enforcement towards ‘attacking the money trail’ were the result of disillusionment with the ability of conventional criminal justice approaches to effectively counter organised crime and the subsequent search for more structured and ‘cost-effective’ approaches. However, the requirement to undertake such a cost-benefit analysis of asset-focussed interventions ‘may reveal that the vast sums spent on asset recovery are an inefficient use of resources’, but that ‘without an empirical evidence base, we cannot answer such questions with confidence’ (Ellis, 2014: 2). The requirement to assess the economic costs (and benefits) associated with asset-focussed interventions thus seems clear. As Matthew Fleming asked in the conclusion to his doctoral study on this topic (2008: 194) asset recovery should be a valuable crime-fighting tool, but at what cost? Developing an answer to this question is problematic, not least due to the fact some have noted a ‘complete dearth’ of studies capable of providing an adequate response (McFadden et al, 2014: 42).

In their 2004 exploration of the possibilities of developing more effective crime reduction strategies in respect of organised crime, Levi and Maguire remarked upon how outcome evaluations of financial incapacitation through confiscation of the proceeds of crime – both criminal and civil – were lacking; and further added that any existing evaluations of such initiatives fell short of full cost-benefit measurement (Levi and Maguire, 2004: 462). Despite some superficial assessments that remain poorly supported by any empirical

evidence – such as Basdeo’s “The benefits of asset forfeiture are indisputable” (Basdeo, 2013: 303) – the actual benefits of asset-focussed interventions against organised crime, especially contrasted with the often un-considered costs of these, are largely un-explored and un-substantiated.<sup>31</sup> Importantly, even those more sceptical of the sole reliance on cost-benefit analysis of asset-focussed interventions recognise that studies relying on figures recovered as ‘benefits’ do not necessarily account for the costs of that recovery (Freiberg and Fox, 2000: 255). Instead, they simply provide one side of the equation.

The paucity of literature to draw upon and the methodological difficulties of conducting cost-benefit evaluations in policing – as highlighted by Farrell et al (2012: 57-59) – were likely influencing factors in Peter Sproat calling ‘tentative’ and ‘a guesstimate’ his 2007 ‘financial cost-benefit analysis of the UK’s anti-money laundering and asset recovery regime’ (Sproat, 2007b). In fact, the key findings of Sproat’s work, which we look at more closely below, were to highlight the difficulties of producing such costings and to question whether the ‘asset recovery regime’ in the UK justifies the costs imposed (Sproat, 2007b: 277). Nevertheless, Sproat’s account is unique in the existing academic literature in its attempt to move towards, and improve the quality of, cost-benefit analyses of the UK money laundering regime and asset recovery regime.<sup>32</sup>

### *Considering ‘costs’*

Sproat (2007b: 277-278) highlights that any assessment of the total public cost of an asset recovery regime would need to include costs of relevant work of those agencies directly involved in such activities, as well as some other key public bodies that assist in recovering assets. Sproat drew upon figures relating to the key state agencies in the UK devoted to anti-money laundering and/or assets recovery work, adding estimates for other financial investigators, prosecutors and others involved in such work. Sproat’s methodology here led to the assessment that the total public costs of anti-money laundering and asset recovery work in the UK was in the region of £373 million in 2005-2006 (Sproat, 2007b: 288). Whilst recognising that the benefits of this regime are difficult to assess due to the time lag between the investment in investigation or prosecution and any ‘return’, Sproat assesses on the basis of official data that the overall financial benefit of this regime in the same period was just under £98 million. His analysis, therefore, provides the result that the regime ‘costs far more to implement than it recovers’: £3.73 spent for every £1 recovered (Sproat, 2007b: 290). Sproat tempers any negative assessment here by highlighting that the amounts recovered were increasing year-on-year in the post-POCA period and that the regime was, at this point, still bedding down and had yet to be fully incorporated within the practices of “mainstream” policing (Sproat, 2007b: 290).<sup>33</sup> However, even almost a decade after Sproat’s assessment it is likely that

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<sup>31</sup> As evidenced in the ‘Effect’ section of this systematic review.

<sup>32</sup> In his tentative financial cost-benefit analysis Sproat states that he is aware of only one academic whose work has attempted to include a financial cost-benefit analysis of the anti-money laundering and asset recovery regime in the UK: through two articles published in the *Journal of Money Laundering Control* by Jackie Harvey (see Sproat, 2007b: 277). A reading of Harvey’s works here, however, does not indicate an interest in asset-focussed interventions or the effectiveness thereof; the focus is instead on the wider realm of money laundering and the views on costs/benefits of the professionals in the financial sector who have been required by the regulations to implement controls.

<sup>33</sup> There is also the un-costed, potential impact of such measures on disrupting serious organised crime activities and associated markets.

there is still much work to be done in ‘mainstreaming’ financial investigation in policing (Bullock, 2010).<sup>34</sup>

Sproat’s work is self-confessedly speculative in places but this shows the difficulty of attempting rigorous academic analyses of the costs and financial benefits of asset recovery work in the context of data that is poor quality, confidential and therefore hard to reach, or sometimes non-existent. The challenges he faced in this task are well recorded and other researchers have acknowledged the difficulties. For example, in relation to the public costs of asset-focussed interventions and the regimes upon which they are based, as well as the sums ultimately confiscated, Fazekas and Nanopoulos noted in their 2016 exploration of asset confiscation in the EU,

“[T]here is a general paucity of data available on even the most essential aspects of asset confiscation work across the 28 Member States, including the costs incurred by public administrations and the total amount of confiscated assets.” (Fazekas and Nanopoulos, 2016: 48).

Such issues have been persistent: a very similar point was made by Savona and Vettori in 2001 (Savona and Vettori, 2001). Even in jurisdictions where asset-focussed interventions are well-rooted and data is available to make assessments and judgements, such as the Republic of Ireland, scholars have noted that the statistical evidence on perceived ‘effectiveness’ is ‘admittedly limited’ and output-focussed (King, 2014: 159). Letizia Paoli also noted in 1997 how this paucity of data can limit assessments of effectiveness of such measures in the Italian context (Paoli, 1997: 263). At best, in the UK, one could refer to the ‘scattered evidence’ on asset-focussed interventions (Harvey, 2014: 189).

Alongside Sproat’s analysis, we can consider what seems to be the most comprehensive recent evidence from the UK. The National Audit Office estimated for the year 2012/13 that around 26p in every £100 of criminal proceeds was actually taken in that year using confiscation orders, increasing to 35p if all other asset recovery measures are included (Comptroller and Auditor General, 2013). The NAO concluded at that time that the confiscation order process ‘is not value for money’ (2013: 8). In a recent follow up report by way of progress review they observe that the system ‘has not been transformed’ as a result of their earlier recommendations, which they see as ‘a disappointing result’ (Comptroller and Auditor General, 2016: 12). In the 2013 report they find that in the year 2012/13, the amount collected in respect of confiscation orders by enforcement agencies was £133m. The annual end-to-end cost of administering the confiscation order system in England and Wales was estimated at £102m. This comprises £36.5m in investigation costs, £33.2m for enforcement, and £31.8m for court hearings and appeals. They make a cost-benefit assessment that £9 was recovered for every £1 spent on confiscation orders in England and Wales in 2012/13. This sounds quite impressive but it is done by taking the ‘cost’ of the programme at only the enforcement cost (so deducting the investigation and court hearing elements of the overall £102m cost of the system and focussing only on the £33m of enforcement costs). From that £33m is further deducted the cost of keeping offenders in prison for defaulting on orders, estimated at £18m. So this leaves the cost of the programme estimated at £15m, a fraction of the overall estimated

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<sup>34</sup> As Kenneth Murray (2013: 99) notes, government and law enforcement in the UK are willing to ‘talk the talk’ in this area, but it remains questionable whether there is a readiness and ability to ‘walk the walk’.

administration cost of the system, and one-ninth of the £133m receipts. Even if these deductions from the cost side of the equation had not been made, the system would still present as being marginally in credit, thus differing considerably from Sproat's assessment. But Sproat was looking across the wider field of the UK's anti-money laundering and asset-recovery regime, while the NAO reports are only concerned with confiscation orders. Such divergent outcomes, speculative 'best estimate' methods, and different opinions on what should be taken to constitute the costs of the system, clearly communicate the challenges of appraising asset-focussed interventions and the overall benefits of such approaches.

In this context, Kruisbergen et al (2016: 16) have remarked that it is important to distinguish between specific measures and sanctions in asset recovery – such as confiscation orders, fines, settlements out of court, and cash seizures – as their applicability as well as their possible costs and benefits differ.<sup>35</sup> Adopting such a granular, specific approach would undoubtedly be beneficial to assessing the costs and benefits of particular types of asset-focussed interventions. For example, in relation to the seizure of property, including vehicles, there are significant practical costs of specific interventions that could be easily overlooked in considering a cost-benefit analysis. As Greenberg et al note,

“It is neither cost-effective nor a deterrent to pursue forfeiture of assets that are limited or depreciating in value or are burdensome to maintain. A home used to store drugs may be heavily encumbered with a mortgage and have little equity in it. Live animals purchased with criminal proceeds may be difficult and expensive to maintain and sell. Articles of counterfeit clothing are subject to forfeiture in many jurisdictions, but they cannot be sold and thus incur storage costs. Such seizures can be a drain on a jurisdiction's resources. Likewise, a car – or aircraft or boat – may be subject to forfeiture as an instrumentality, but depending on the age and condition of the vehicle, the cost to seize, store, and forfeit may well exceed the value of the vehicle.” (Greenberg et al, 2009: 47).<sup>36</sup>

In the US context it has also been noted that mismanagement of complex assets can result in excessive asset management administration costs (United States Department of Justice, 2011: 9). In the UK, Karen Bullock (2010: 333-334) has highlighted that enforcement practitioners – financial investigators and others – argued that they should have the power to sell assets as soon as they are seized, in some cases even before a guilty verdict is returned, in order to maximise the value received. Examining attrition in confiscating the proceeds of crime in 2009, Bullock et al noted that their research participants stated that restraint was unlikely to be cost-effective in orders below a certain value; and whilst opinions differed as to the figure a value of around £15,000 was commonly suggested (Bullock et al, 2009: 21). Certainly, in considering the costs of asset-focussed

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<sup>35</sup> As Antonio La Spina notes in his overview of anti-Mafia policies in Italy, “A proper evaluative analysis should concentrate on individual measures, assessing for each of them the relationships between input of resources, process features, outputs and outcomes.” (La Spina, 2004: 658).

<sup>36</sup> Very similar issues were recorded in the Netherlands (Groos, 1993: 134-135) and more recently in Norway (Jensson, 2011: 65).

interventions, it is important to recognise that attrition can be substantial (Bullock and Lister, 2014; Kruisbergen et al, 2016), and measures should be taken to mitigate this.<sup>37</sup>

### *Understanding 'benefits'*

Perhaps the most pressing issue with cost-benefit analysis in the context of this review is that even the available studies, including Sproat's work and the NAO reports, do not directly address the impact of asset-focussed interventions on organised crime itself. The distinction here is between organisational output data/measures and real-world outcomes, as previously noted in the section on the effectiveness of asset-focussed interventions. Understanding exactly what are the anticipated and realised 'benefits' of a particular intervention – and associated issues of who benefits, how they do so and for how long – is key. Whilst approaches that seek to move beyond numeric outputs and into real-world outcomes are clearly challenging, particularly as they may highlight difficult truths, Levi notes they are important in understanding and identifying success (Levi, 2003: 222-223).

Some jurisdictions record reasonably comprehensive statistics on value of assets identified, restrained and recovered.<sup>38</sup> However, the identification, restraint, confiscation or recovery of ever-increasing sums of money or property says very little about reducing the level of organised crime or, importantly, the harms associated with organised crime.<sup>39</sup> Considered in isolation such absolute sums have long been considered as 'meaningless' (Naylor, 1999: 15). Without an outcome measure - whether that is harm-, threat- or crime-reduction, or some other real-world benefit - the type of 'cost-benefit' studies by Sproat and NAO mentioned can perhaps best be seen as, in the end, cost studies. 'Money in' (the perceived 'benefit') is deducted from 'money out' (the cost of the system) to give the overall cost performance of the policy. The 'benefit' to society in real terms is not available as part of this type of calculation.

There is evidence of law enforcement agencies using key performance indicators that go beyond numeric outputs; for example attempts to measure the disruption of organised criminal enterprises (Leong, 2006; Mackenzie and Hamilton-Smith, 2011). This is important because, as a Royal United Services Institute for Defence and Security Studies conference report observed, whilst financial gain is the main motivation for organised crime, profits are not always monetary – they can also be social, reputational or ideological – and any attempt to identify metrics to measure disruptive impact must broaden their focus accordingly. (Ellis, 2014: 70). Additionally, existing resourcing of financial investigation is considered to carry high opportunity costs (Brown et al, 2012: 10); which is to say that the decision to implement and undertake asset-focussed interventions, and the resources deployed in furtherance of such approaches, has a cost impact on other areas of law enforcement business (see also Bullock, 2010: 12).

In identifying evidence that works to improve decision making Tilley (2016: 310) recognises that whilst outcomes may be variable and unstable, it is difficult to deny the

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<sup>37</sup> In their analysis of attrition in the confiscation process Bullock et al (2009) noted several areas where action could be taken to improve the confiscation process and the amount it recovers, including 'the promotion of a more systematic and strategic approach to the use of confiscation' and improving coordination between agencies.

<sup>38</sup> For a useful example in Australia see Bartels (2010).

<sup>39</sup> In a 2008 appraisal of asset recovery in the UK Angela Leong highlighted how, even two years after the establishment of the Serious Organised Crime Agency (SOCA), the fundamental parameters for measuring harm reduction had yet to be defined (Leong, 2008).



practical requirement to estimate ‘expected monetized outcomes from different resource allocation decisions’. Nevertheless, the available evidence indicates that assessing the cost-effectiveness of asset-focussed interventions is incredibly difficult across all levels of analysis. There are profound difficulties in producing accurate, reliable and replicable data. Tilley (2016: 307) is undoubtedly correct to state that, for the rational decision-maker, best estimates of expected bottom-line net outcomes are important. However, it also remains the case that asset-focussed interventions are fundamentally political in nature, and thus in some important respects their uptake is somewhat resistant to, and certainly not reducible to, pure cost-benefit analysis. As early as 1995 Levi and Osofsky (1995: vii) highlighted the circumstances in which the cost of the pursuit of offender’s assets through prosecution may exceed the obtained assets, thus resulting in no net benefit for, or even a cost to, the taxpayer. As with many criminal sanctions, even where they may not be the most cost-effective thing to do (or where the monetized ‘benefits’ are unclear at best), they may be considered the morally right thing to do, or the most expedient.

## DISCUSSION

The call for a focus on outcomes of policing and law enforcement activity in relation to organised crime is not new (see Mastrofski and Potter, 1986: 165). In research published in 2008 Allan Castle explored the possibility of measuring the impact of law enforcement on organised crime in a reliable and accountable manner. While not considering asset-focussed approaches specifically, much of Castle’s assessment reflects the challenges of assessing the effectiveness of such approaches,

“In considering measures to combat organized crime, a focus on process measurement has obscured the more substantial question of progress as regards the dependent variable itself: the bottom line of reducing the impact of organized criminal behaviour. While outcome measures are more challenging to identify than process measures, this fact alone does not minimize the need to demonstrate the connection between organized crime enforcement and its presumed outcomes to a greater degree of certainty. To date, this has not been realized to any significant degree...” (Castle, 2008: 135).

The paucity of evidenced-based studies in the literature on asset-focused interventions that meet the criteria for meta-analysis, particularly in assessing effect size, is unfortunate; but the existing literature does provide some insight into the various strands of EMMIE, beyond effect, that are important. From this base it is possible to highlight the ways in which asset-focussed interventions are expected to reduce, or at the very least impact upon, organised crime and the conditions in which the sought-after outcomes are more likely to be observed (or not).<sup>40</sup> The requirement for further robust research on the actual outcomes of asset-focussed interventions is clear.

As previously noted, even although asset-focussed interventions can be understood to be fundamentally political in nature, there is an underlying assumption that they are effective. For an example see Colin King’s remarks in relation to the adoption of civil forfeiture in Ireland that,

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<sup>40</sup> Drawing upon a similar exercise undertaken by Sidebottom et al (2015).

“It is widely believed that the [Proceeds of Crime] Act has impacted upon the activities of organized crime groups, either in the form of disrupting and/or dismantling their illicit activities.” (King, 2014: 159).

Belief, however, must not be considered as synonymous with evidence. Whilst the absence of robust evidence on the effectiveness of such approaches is not evidence of their ineffectiveness, this remains an important knowledge gap, not least due to the consequences of the impact of such approaches on legislation, human rights and beyond. As Kruisbergen et al noted,

“It is not a bad thing if decision making in the political arena is based (in part) on ideology. However, legislative debates should be fuelled more by pragmatism and – above all – insight into the ‘law in action’. A better understanding of how, against whom, and with what results different ‘follow the money’ measures are applied might help to choose the ‘right’ objectives and priorities. It might also help to improve – or prevent – further legislative initiatives.” (Kruisbergen et al, 2016: 16).<sup>41</sup>

The present review points not only to the gaps in the current evidence-base on asset-focussed interventions – such as any known effect size, whether the theoretical rationale for such approaches is supported by evidence, and the precise cost-effectiveness of deploying such tactics – but also to the areas in which knowledge has been generated: from the expectations of the causal mechanism that underlie such approaches to the strengths and weakness of the factors that support their successful implementation. Much of this knowledge, curated in this systematic review by prospectively deploying EMMIE, is essential to decision-makers seeking to work with asset-focussed interventions. As Tilley has highlighted, EMMIE:

“comprises a pragmatic approach wherein the realist methods most relevant to contexts, mechanisms and outcome pattern configurations are married to traditional PPP [programmes, policies and practices] experimental methods used in most effect and economy studies and to qualitative methods that are often used to investigate implementation.” (Tilley, 2016a: 317).

## CONCLUDING REMARKS

The findings of this work are premised on the move beyond equating systematic reviews solely with meta-analysis (Farrington and Petrosino, 2001: 37) and towards integrating other approaches, particularly realist synthesis, into systematic reviews. This was achieved here by deploying the EMMIE framework prospectively, using it to structure the analysis and synthesis of evidence, and communicate findings hopefully in a comprehensive and comprehensible manner to interested audiences.

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<sup>41</sup> Reflecting on the Australian case, King (2014: 161) noted that despite a lack of evidence as to the effectiveness of proceeds of crime approaches, legislation in this area has become progressively more severe.

Considering the research question that we have addressed, there is certainly a perception amongst some practitioners that asset-focussed interventions against organised crime do ‘work’. For example, a leading barrister in England has remarked,

“It is generally accepted that the impact of asset recovery on organized crime can be devastating, as can any method of confiscation, and wide-ranging powers are available to, for example, the Serious Organized Crime Agency, to take over specific and general tax-collection functions from HMRC where it is believed that a person’s income or gain or company profit has arisen as a result of their or another person’s criminal conduct.” (Cooper, 2012).

Similarly, Kirby et al (2015) found, in a recent study examining local proactive policing teams in the north of England, that some practitioners believed asset seizure was their most useful disruption tactic in policing organised crime at the local level. It is difficult for organised criminals to disguise the signs of wealth at the local community level, where neighbours and local police officers might naturally observe signals of otherwise-concealed wealth, in purchases of high-end cars and suchlike.

Informative and suggestive local studies like this are examples of the indicative landscape of much organised crime research in the field, which is usually not geared towards producing the kind of evidence-base that would be required by the science of ‘what works’ or, indeed, the critical self-evaluation of responses through engaging in the measurement of outcomes, which tend to remain insufficiently analysed (Levi, 2004: 847). Therefore, one of the primary messages of this review has been to highlight the lack of evidence to support the effectiveness of asset-focussed interventions in reducing organised crime. This is not to say that such interventions are not effective in reducing organised crime, but to say that we simply do not know if they are or are not. There are likely to be benefits from the current legislative regime; including the provision of a structure from which to proactively gather financial intelligence, and the facilitation of cross-jurisdictional co-operation and harmonisation.

Contrary to the suggestions of some practitioners that asset-focussed interventions are effective, others disagree. For example, referring to the prevailing view he found amongst police officers, Levi (1997b: 235) has noted that although confiscation hurts the criminal by taking from the individual what they value most (assets), it does little to put the individual or their organisation out of business. More provocatively in his 1999 critique of follow-the-money methods in crime control policy Tom Naylor summarised the ineffectiveness of such approaches, and noted the ideological justification on which they ultimately rest,

“Thus, there is no real proof that a proceeds-of-crime approach really succeeds in accomplishing three of its major declared objectives. It cannot be reliably said to deter; it likely has little or no impact in preventing the corruption of legal markets; and there is no evidence it has been able to cripple any criminal “organizations” by depriving them of capital. Still, there is a fourth rationalization offered for targeting proceeds of crime. It states simply and starkly that criminals should not be allowed to profit from their crimes. It is a moral principle with which few would disagree and which requires no empirical verification.” (Naylor, 1991: 33-34).

Naylor continued,

“In the hands of law enforcement, the modern policy of attacking the “proceeds-of-crime” by finding, freezing and forfeiting laundered money has been, to all intents and purposes, one great “wash-out.”” (Naylor, 1991: 51).

We find it difficult to concur fully with Naylor’s analysis, for the same reasons that it is difficult to suggest that such approaches do ‘work’. Instead, the present review supports the more nuanced analysis of Bullock and Lister (2014), which offers caution about how asset-focussed interventions operate as a key pillar in contemporary crime control efforts.<sup>42</sup>

Drawing specifically upon the EMMIE framework, the following findings in particular should be of use to practitioners. While asset-focussed interventions have a foundation in theory, and some practitioners value the associated tactics based on anecdote and professional opinion, there is no solid, currently available evidence-base to point to the effectiveness of such approaches in relation to real-world outcomes. Similarly, however, there is no comparable basis on which to say they are ineffective. Asset-focussed interventions should be considered as a particular resource within a larger armoury of police/law enforcement interventions against organised crime. This is probably where they work best, but could make it harder to identify a specific causal link between their use and a specific outcome. A precursor to any success of asset-focussed interventions is the broadening of the specialist knowledge (both within and beyond policing/law enforcement as traditionally conceptualised), attuned to the challenge of implementation in this complex area of criminal activity. Such tactics need to be routinised and embedded within everyday policing, not seen as something that is done by ‘someone else’. Cost-benefit analysis in this area is complex, and academics and government agencies have come to different views on whether asset-focussed interventions are cost effective. There is a need to understand the costs and benefits at a local level, as well as the larger national picture.

Yet, Naylor does point to an underlying truth in the analysis of the literature and research on asset-focussed interventions: that the evidence base for judging the effectiveness of such approaches is weak, but the moral imperative upon which such approaches rest remains attractive, defensible and popular in the current climate. Given this strong populist foundation, therefore, asset-focussed interventions are likely to remain a key tactic used by law enforcement and policing agencies against organised crime, irrespective of any firm foundation of evidence to suggest that they can be truly said to ‘work’.

This position of uncertainty on the effectiveness of whether asset-focussed interventions do or do not ‘work’, whilst unsatisfying, is not uncharacteristic of the outcomes of systematic reviews. For Petticrew and Roberts,

“It would be comforting to think that systematic reviews were a sort of panacea, producing final definitive answers and precluding the need for further primary studies. Yet they do not always provide definitive answer and

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<sup>42</sup> Bullock and Lister (2014: 56) argue that there is ‘little evidence’ of the effectiveness of asset confiscation in reducing crime locally or nationally in England and Wales.

are not intended to be a substitute for primary research. Rather, they often identify the need for additional research as they are an efficient method for identifying where research is currently lacking.” (Petticrew and Roberts, 2006: 268).

Following such sensibilities, uncertainty in systematic reviews may be better recognised as something to be celebrated, not censored. As Alderson and Roberts noted in the *British Medical Journal*,

“So the uncertainty demonstrated in systematic reviews can help clarify the options available to clinicians and patients. It can stimulate more research and better research and so help to resolve uncertainty. Uncertainty should not be hidden away as an embarrassment. We should be willing to admit that “we don't know” so that the evidential base of health care can be improved for future generations.” (Alderson and Roberts, 2000).

Similar sentiments can be readily applied to research in policing and crime control. Organised crime is a difficult area to research. Academics disagree on definitions and appropriate forms of measurement. Similarly, access to offenders and law enforcement data and personnel can be difficult to orchestrate. Such factors undoubtedly contribute to a paucity of studies firmly rooted in evidence. As such, debates involving organised crime are often at a higher level of abstraction, and can distance themselves from the provision of ‘operationally relevant’ information. Although likely to be a complex and challenging task, the area of asset-focussed interventions is germane for undertaking experimental or quasi-experimental studies of ‘effect’, qualitative research, and updated forms of ‘economic’ cost-benefit analysis.

The utility of systematic reviews in ‘dispelling myths’ in their selected areas of enquiry is a feature of their place in the research literature (Petticrew and Roberts, 2006: 268). There do seem to be myths, or at least assumptions, around the value of asset-focussed interventions in relation to organised crime. The main task to emerge from this systematic review has been to expose the lack of evidence available to support many of those assumptions. In that respect, additional research and evidence to address current knowledge gaps is much needed.

## REFERENCES

- Alagna, F. (2015). Non-conviction based confiscation: why the EU directive is a missed opportunity. *European Journal on Criminal Policy and Research*, 21 (4): 447-461.
- Albanese, JS. (2009). Controlling Organized Crime: Looking for Evidence-Based Approaches. *Victims & Offenders: An International Journal of Evidence-based Research, Policy, and Practice*, 4 (4): 412-419.
- Albertson, K. and Fox, C. (2011). *Crime and Economics: An Introduction*. Abingdon: Routledge.
- Alderson, P. and Roberts, I. (2000). Should journals publish systematic reviews that find no evidence to guide practice? Examples from injury research. *BMJ* 2000; 320:376. Available at: <http://www.bmj.com/content/320/7231/376> [Accessed 15 February 2017].
- Araujo, RA. and Moreira, TBS. (2012). An Economic Investigation of Confiscation as a Tool Against Money Laundering. *EconomiA*, 13 (2): 271-280.
- Arlacchi, P. (1984). Effects of the new anti-mafia law on the proceeds of crime and on the Italian economy. *Bulletin on Narcotics*, 36 (4): 91-100.
- Australian Government. (2015). *National Organised Crime Response Plan 2015-18*. Available at: <https://www.ag.gov.au/CrimeAndCorruption/OrganisedCrime/Documents/NationalOrganisedCrimeResponsePlan2015-18.pdf> [Accessed 15 February 2017].
- Bartels, L. (2010). *A Review of Confiscation Schemes in Australia. Technical and Background Paper 36*. Canberra: Australian Institute of Criminology.
- Basdeo, V. (2013). The legal challenges of criminal and civil asset forfeiture in South Africa: a comparative analysis. *African Journal of International and Comparative Law*, 21 (3): 303-326.
- Bersten, M. (1990). Defining organised crime in Australia and the USA. *Australian & New Zealand Journal of Criminology*, 23 (1): 39-59.
- Bowles, R., Faure, M. and Garoupe, N. (2005). Forfeiture of illegal gain. *Oxford Journal of Legal Studies*, 25 (2): 275-295.
- Brown, R. (2013). Reaching the parts other investigations cannot reach: securing convictions for organised crime through financial investigation. *Journal of Financial Crime*, 20 (3): 259-266.
- Brown, R., Evans, E., Webb, S., Holdaway, S., Berry, G. Chenery, S., Gresty, B. and Jones, M. (2012). *The Contribution of Financial Investigation to Tackling Organised Crime: A Qualitative Study*. London: Home Office. Available at, [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/116518/horr65.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/116518/horr65.pdf) [Accessed 15 February 2017].

Bullock, K. (2010). The confiscation investigation: investigating the financial benefit made from crime. *Policing: A Journal of Policy and Practice*, 4 (1): 7-14.

Bullock, K. (2014). Criminal benefit, the confiscation order and the post-conviction confiscation regime. *Crime, Law and Social Change*, 62 (1): 45-64.

Bullock, K. and Lister, S. (2014). Post-conviction confiscation of assets in England and Wales: rhetoric and reality. In: King, C. and Walker, C. (Eds.) *Dirty Assets: Emerging Issues in the Regulation of Criminal and Terrorist Assets*. Farnham: Ashgate.

Cabana, PF. (2014). Improving the recovery of assets resulting from organised crime. *European Journal of Crime, Criminal Law and Criminal Justice*, 22 (1): 13-22.

Cabinet Office (2000). *Recovering the Proceeds of Crime*. London: Cabinet Office Performance and Innovation Unit.

Cabinet Office (2009). *Extending Our Reach: A Comprehensive Approach to Tackling Serious Organised Crime*. London: The Stationary Office.

Campbell, L. (2013). *Organized Crime and the Law: A Comparative Analysis*. Oxford and Portland: Oregon.

Cartwright, N. (2007). Are RCTs the Gold Standard? *Biosocieties*, 2 (1): 11-20.

Castle, A. (2008). Measuring the impact of law enforcement on organized crime. *Trends in Organized Crime*, 11 (2): 135-156.

Cavanagh, B., Hamilton-Smith, N. and Mackenzie, S. (2016). Organised crime in Scotland and the criminal justice response. In: Croall, H., Mooney, G. and Munro, M. (Eds.) *Crime, Justice and Society in Scotland*. London: Routledge.

College of Policing (2014a). Asset recovery [Internet]. Available at: <https://www.app.college.police.uk/app-content/investigations/investigative-strategies/financial-investigation-2/asset-recovery> [Accessed 15 February 2017].

College of Policing (2014b). Forfeiture and deprivation [Internet]. Available at: <https://www.app.college.police.uk/app-content/investigations/investigative-strategies/financial-investigation-2/asset-recovery/forfeiture-and-deprivation> [Accessed 15 February 2017].

Collins, M. and King, C. (2013). The disruption of crime in Scotland through non-conviction based asset forfeiture. *Journal of Money Laundering Control*, 16 (4): 379-388.

Cook, PJ. (2013). Foreword. In: Walsh, BC., Braga, AA. and Bruinsma, GJN. (Eds.) *Experimental criminology: prospects for advancing science and public policy*. Cambridge: Cambridge University Press.

Comptroller and Auditor General. (2013). *Criminal Justice System, Confiscation Orders*. London: TSO.

Comptroller and Auditor General. (2016). *Criminal Justice System, Confiscation Orders: Progress Review*. London: TSO.

Coyne, J. and Bell, P. (2015). *The Role of Strategic Intelligence in Law Enforcement: Policing Transnational Organized Crime in Canada, the United Kingdom and Australia*. London: Palgrave Macmillan.

Crown Prosecution Service. (2014). *CPS Asset Recovery Strategy*. London: Crown Prosecution Service. Available at: [https://www.cps.gov.uk/publications/docs/cps\\_asset\\_recovery\\_strategy\\_2014.pdf](https://www.cps.gov.uk/publications/docs/cps_asset_recovery_strategy_2014.pdf) [Accessed 15 February 2017].

Crime and Corruption Committee Queensland. (2015). *Assets of Queensland drug offenders: an analysis of Crime and Corruption Commission proceeds of crime data, 2009–14*. Queensland: Crime and Corruption Committee.

Cullen, FT. and Gendreau, P. (2001). From nothing works to what works: changing professional ideology in the 21st century. *The Prison Journal*, 81 (3): 313-338.

Dayman, S. (2009). Is the patient expected to live? UK civil forfeiture in operation. In: Young, SNM. (Ed.) *Civil Forfeiture of Criminal Property: Legal Measures for Targeting the Proceeds of Crime*. Cheltenham: Edward Elgar.

Dellow, JA. (1987). Organized Crime. *The Police Journal*, 60 (3): 200-204.

Donnelly, D. and Scott, K. (2010). *Semper vigilo: the future of Scottish policing*. In: Donnelly, D. and Scott, K. (Eds.) *Policing Scotland*. Collumpton: Willan.

Dubourg, R. and Prichard, S. (2007). *Organised crime: revenues, economic and social costs, and criminal assets available for seizure*. Available at <http://www.cscs.ucl.ac.uk/club/e-library/organised-crime/organised.pdf> [Accessed 15 February 2017].

Ellis, C. (2014). Proceedings of the Conference ‘Disrupting Organised Crime: Developing the Evidence Base to Understand Effective Action’ – ST FC/RUSI Conference Series No. 5. Available at: [https://rusi.org/sites/default/files/201411\\_stfc\\_disrupting\\_organised\\_crime.pdf](https://rusi.org/sites/default/files/201411_stfc_disrupting_organised_crime.pdf) [Accessed 15 February 2017].

European Commission. (2008). Proceeds of crime: ensuring that “crime does not pay”. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0766:FIN:EN:PDF> [Accessed 15 February 2017].

European Commission. (2008). Confiscation & asset recovery. Available at: [http://ec.europa.eu/dgs/home-affairs/what-we-do/policies/organized-crime-and-human-trafficking/confiscation-and-asset-recovery/index\\_en.htm](http://ec.europa.eu/dgs/home-affairs/what-we-do/policies/organized-crime-and-human-trafficking/confiscation-and-asset-recovery/index_en.htm) [Accessed 15 February 2017].



European Commission. (2009). *Assessing the effectiveness of EU Member States' practices in the identification, tracing, freezing and confiscation of criminal assets*. Brussels: European Commission.

Farrell, G., Bowers, KJ. and Johnson, SD. (2009). Cost-benefit analysis for crime science: making cost-benefit analysis useful through a portfolio of outcomes. In: Smith, M. and Tilley, N. (Eds.) *Crime Science: New Approaches to Preventing and Detecting Crime*. Abingdon: Routledge.

Farrington, DP. (2003). A short history of randomized experiments in criminology: a meager feast. *Evaluation Review*, 27 (3): 218-227.

Farrington, DP. and Petrosino, A. (2001). The Campbell collaboration crime and justice Group. *The Annals of the American Academy of Political and Social Science*, 578: 35-49.

Fazekas, M. and Nanopoulos, E. (2016). The effectiveness of EU law: insights from the EU legal framework on asset confiscation. *European Journal of Crime, Criminal Law and Criminal Justice*, 24 (1): 39-64.

Fijnaut, C. and Paoli, L. (2004). Comparative synthesis of part III. In Fijnaut, C. and Paoli, L. (Eds.). *Organised Crime in Europe: Concepts, Patterns and Control Policies in the European Union and Beyond*. Dordrecht: Springer.

Finckenauer, J. (2005). Problems of definition: what is organized crime? *Trends in Organized Crime*, 8 (3): 63-83.

Fisher, J. (2015). Part 1 of the Serious Crime Act 2015: strengthening the restraint and confiscation regime. *Criminal Law Review*, 10: 754-765.

Fleming, MH. (2008). *An examination of the means of establishing the efficacy of asset recovery and anti-money laundering policies*. Unpublished PhD thesis, University College London. Available at: <http://discovery.ucl.ac.uk/1444207/> [Accessed 15 February 2017].

Freiberg, A. and Fox, R. (2000). Evaluating the effectiveness of Australia's confiscation laws. *Australian & New Zealand Journal of Criminology*, 33 (3): 239-265.

Fried, DJ. (1988). Rationalizing criminal forfeiture. *Journal of Criminal Law and Criminology*, 79 (2): 328-436.

Gabor, T. (2003). *Assessing the Effectiveness of Organized Crime Control Strategies: A Review of the Literature*. Ottawa: Department of Justice Canada.

Gelsthorpe, L. and Sharpe, G. (2005). Criminological research: typologies versus hierarchies. *Criminal Justice Matters*, 62 (1): 8-43

Gilmour, S. (2008). Understanding organized crime: a local perspective. *Policing: A Journal of Policy and Practice*, 2 (1): 18-27.

Gold, M. and Levi, M. (1994). *Money-Laundering in the UK: An Appraisal of Suspicion-based Reporting*. London : Police Foundation/University of Wales.

Hagan, FE. (2006). “Organized Crime” and “organized crime”: Indeterminate problems of definition. *Trends in Organized Crime*, 9 (4): 127-137.

Hancock, G. and Laycock, G. (2010). Organised crime and crime scripts: prospects for disruption. In: Bullock, K., Clarke, RVG. and Tilley, N. (Eds.) *Situational Prevention of Organised Crimes*. Cullompton: Willan.

Hamilton-Smith, N. and Mackenzie, S. (2010). The geometry of shadows: a critical review of organised crime risk assessments. *Policing and Society*, 20 (3): 257-279.

Hamran, L. (2016). Confiscation of proceeds from crime: a challenge for criminal justice. In: Goudappel, FANJ. and Hirsch Ballin, EMH. *Democracy and Rule of Law in the European Union*. The Hague: Asser Press.

Harfield, C. (2008). Paradigms, pathologies, and practicalities – policing organized crime in England and Wales. *Policing: A Journal of Policy and Practice*, 2 (1): 63-73.

Harvey, J. (2014). Asset recovery: substantive or symbolic? In: King, C. and Walker, C. (Eds.) *Dirty Assets: Emerging Issues in the Regulation of Criminal and Terrorist Assets*. Farnham: Ashgate.

Harvey, J. and Lau, SF. (2008). Crime-money records, recovery and their meaning. In: van Duyne, PC., Harvey, J., Maljevic, A. Scheinost, M. and von Lampe, K. (Eds.) *European Crime-markets at Cross-roads: Extended and Extending Criminal Europe*. Nijmegen: Wolf Legal Publishers.

Hendry, J. and King, C. (2015). How far is too far? Theorising non-conviction-based asset forfeiture. *International Journal of Law in Context*, 11 (4): 398-411.

Her Majesty’s Inspectorate of Constabulary. (2004). *Payback Time: Joint Review of Asset Recovery since POCA*. London: Home Office.

HM Crown Prosecution Service Inspectorate and HM Inspectorate of Constabulary. (2010). *Joint Thematic Review of Asset Recovery: Restraint and Confiscation Casework*. London: Home Office.

HM Government. (2013). *Serious and Organised Crime Strategy*. UK: The Stationery Office Limited. Available at: <https://www.gov.uk/government/publications/serious-organised-crime-strategy> [Accessed 15 February 2017].

Hobbs, D. and Antonopoulos, GA. (2014). How to research organized crime. In: Paoli, L. (Ed.) *The Oxford Handbook of Organized Crime*. Oxford: Oxford University Press.

Home Office. (2004). *One Step Ahead: A 21st Century Strategy to Defeat Organised Crime*. London: The Stationary Office.

Horowitz, J. and Zedlewski, E. (2006). Applying cost-benefit analysis to policing evaluations. *Justice Research and Policy*, 8 (1): 51-65.

Hough, M. (2010). Gold standard or fool's gold? The pursuit of certainty in experimental criminology. *Criminology and Criminal Justice*, 10 (1): 11-22.

Hummel, D. (2016). Traffic tickets: public safety concerns or budget building tools. *Administration & Society*, 47 (3): 298-319.

Jensson, A. (2011). *Crime Should Not Pay: Iceland and the International Developments of Criminal Assets Recovery*. Unpublished Masters Thesis. The Haag: School of Social Science, University of the Haskoli Islands.

Johnson, SD., Tilley, N. and Bowers, K. J. (2015). Introducing EMMIE: an evidence rating scale to encourage mixed-method crime prevention synthesis reviews. *Journal of Experimental Criminology*, 11 (3): 459-473.

Jones, AP. (1981). *Asset Forfeiture - A Seldom Used Tool in Combatting Drug Trafficking*. US Government Accountability Office. Available at: <http://www.gao.gov/products/GGD-81-51> [Accessed 15 February 2017].

Keightley, R. (2009). Asset forfeiture in South Africa under the Prevention of Organised Crime Act 121 of 1998. In: Young, SNM. (Ed.) *Civil Forfeiture of Criminal Property: Legal Measures for Targeting the Proceeds of Crime*. Cheltenham: Edward Elgar.

Kelly, BD. and Kole, M. (2016). The effects of asset forfeiture on policing: a panel approach. *Economic Inquiry*, 54 (1): 558-575.

Kennedy, A. (2006). Designing a civil forfeiture system: an issues list for policymakers and legislators. *Journal of Financial Crime*, 13 (2): 132-163.

Kennedy, A. (2007). An evaluation of the recovery of criminal proceeds in the United Kingdom. *Journal of Money Laundering Control*, 10 (1): 33-46.

Kennedy, DM. (2009). *Deterrence and Crime Prevention: Reconsidering the Prospect of Sanction*. London: Routledge.

Kilchling, M. (2001). Tracing, Seizing and Confiscating Proceeds from Corruption (and other Illegal Conduct) Within or Outside the Criminal Justice System. *European Journal of Crime, Criminal Law and Criminal Justice*, 9 (4): 264-280.

Kirby, S., Francis, B., Humphreys, L. and Soothill, K. (2016). Using the UK general offender database as a means to measure and analyse organized crime. *Policing: An International Journal of Police Strategies & Management*, 39 (1): 78-94.

Kirby, S. and Nailer, L. (2016). Reducing the offending of a UK organized crime group using an opportunity-reducing framework – a three year case study. *Trends in Organized Crime*, 16 (4): 397-412.

Kirby, S., Northey, H., Snow, N. (2015). New crimes – new tactics: the emergence and effectiveness of disruption in tackling serious organised crime. *The Journal of Political Criminology*, 1 (1): 1-13.

Kirby, S. and Snow, N. (2016). Praxis and the disruption of organized crime groups. *Trends in Organized Crime*, 19 (2): 111-124.

King, C. (2014). “Hitting back” at organised crime: the adoption of civil forfeiture in Ireland. In: King, C. and Walker, C. (Eds.) *Dirty Assets: Emerging Issues in the Regulation of Criminal and Terrorist Assets*. Farnham: Ashgate.

King, C. and Walker, C. (2014). Emerging issues in the regulation of criminal and terrorist assets. In: King, C. and Walker, C. (Eds.) *Dirty Assets: Emerging Issues in the Regulation of Criminal and Terrorist Assets*. Surrey: Ashgate.

Kleemans, ER. (2012). Organized crime and the visible hand: a theoretical critique on the economic analysis of organized crime. *Criminology and Criminal Justice*, 13 (5): 615-629.

Kroeker, RG. (2014). The pursuit of illicit proceeds: from historical origins to modern applications. *Journal of Money Laundering Control*, 17 (3): 269-280.

Kruisbergen, EW., Kleemans, ER. and Kouwenberg, RF. (2016). Explaining attrition: Investigating and confiscating the profits of organized crime. *European Journal of Criminology*, 13 (6): 677-695.

La Spina, A. (2004). The paradox of effectiveness: growth, institutionalisation and evaluation of anti-mafia policies in Italy. In Fijnaut, C. and Paoli, L. (Eds.). *Organised Crime in Europe: Concepts, Patterns and Control Policies in the European Union and Beyond*. Dordrecht: Springer.

Laycock, G. (2010). Foreword. In: Bullock, K., Clarke, RV. and Tilley, N. (Eds.) *Situational Prevention of Organised Crimes*. Cullompton: Willan.

Lee, LLC. (2009). The current forfeiture regime in Taiwan. In: Young, SNM. (Ed.) *Civil Forfeiture of Criminal Property: Legal Measures for Targeting the Proceeds of Crime*. Cheltenham: Edward Elgar.

Leong, AVM. (2008). “Passing the buck!”, *Journal of Money Laundering Control*, 11 (2). Available at: <http://www.emeraldinsight.com/doi/abs/10.1108/jmlc.2008.31011baa.001> [Accessed 15 February 2017].

Leong, AVM. (2006). Civil recovery and taxation regime: are these new powers under the Proceeds of Crime Act 2002 working? *The Company Lawyer*, 27 (12): 362-368.

Leong, AVM. (2016). *The Disruption of International Organised Crime: An Analysis of Legal and Non Legal Strategies*. London: Routledge.

- Levi, M. (1997a). Taking the profit out of crime: the UK experience. *European Journal of Crime, Criminal Law and Criminal Justice*, 5 (3): 228-239.
- Levi, M. (1997b). Evaluating the 'new policing': attacking the money trail of organized crime. *Australian and New Zealand Journal of Criminology*, 30 (1): 1-25.
- Levi, M. (1998). Perspectives on 'organised crime': an overview. *The Howard Journal of Criminal Justice*, 37 (4): 335-345.
- Levi, M. (2003). Criminal asset-stripping: confiscating the proceeds of crime in England and Wales. In: Gill, P. and Edwards, A. (Eds.) *Transnational organised crime: perspectives on global security*. London: Routledge.
- Levi, M. (2004). The Making of the United Kingdom's Organised Crime Control Policies. In: Fijnaut, C. and Paoli, L. (Eds.) *Organised Crime in Europe: Concepts, Patterns and Control Policies in the European Union and Beyond*. Dordrecht: Springer.
- Levi, M. (2013). *Drug Law Enforcement and Financial Investigation Strategies, Modernising Drug Law Enforcement – Report 5*. London: International Drug Policy Consortium. Available at: <http://orca.cf.ac.uk/88170/1/MDLE-5-drug-law-enforcement-financial-investigation-strategies.pdf> [Accessed 15 February 2017].
- Levi, M. (2014). Thinking about organised crime. *The RUSI Journal*, 159 (1): 6-14.
- Levi, M. (2015). The impacts of organised crime in the EU: some preliminary thoughts on measurement difficulties. *Contemporary Social Science*, 11 (4): 392-402.
- Levi, M. and Maguire, M. (2004). Reducing and preventing organised crime: an evidence-based critique. *Crime, Law & Social Change*, 41 (5): 397-469.
- Levi, M. and Maguire, M. (2011). Something old, something new; something not entirely blue: uneven and shifting modes of crime control. In: Newburn, T. and Peay, J. (Eds.) *Policing: Politics, Culture and Control*. Hart Publishing: Portland, Oregon.
- Levi, M. and Osofsky, L. (1995). *Investigating, Seizing, and Confiscating the Proceeds of Crime. Crime Detention and Prevention Series Paper 61*. London: Home Office.
- Lum, C., Kennedy, L.W. and Sherley, A. (2006). Are counter-terrorism strategies effective? The results of the Campbell systematic review on counter-terrorism evaluation research. *Journal of Experimental Criminology*, 2 (4): 489-516.
- Lum, C., Koper, CS, and Telep, CW. (2011). The evidence-based policing matrix. *Journal of Experimental Criminology*, 7 (1): 3-26.
- Lum, C., Telep, CW, Koper, CS and Grieco, J. (2011). Receptivity to research in policing. *Justice Research and Policy*, 14 (1): 61-95.
- Lusty, D. (2002). Civil forfeiture of proceeds of crime in Australia. *Journal of Money Laundering Control*, 5 (4): 345-359.

Mackenzie, S. and Hamilton-Smith, N. (2011). Measuring police impact on organised crime. *Policing: An International Journal of Police Strategies & Management*, 34 (1): 7-30.

Makowsky, MD. and Stratmann, T. (2009). Political economy at any speed: what determines traffic citations? *American Economic Review*, 99 (1): 509-527.

Makowsky, MD. and Stratmann, T. (2011). More tickets, fewer accidents: how cash-strapped towns make for safer roads. *The Journal of Law & Economics*, 54 (4): 863-888.

Maltz, M. (1976). On defining organised crime: the development of a definition and a typology. *Crime and Delinquency*, 22 (3): 338-346.

Maltz, M. (1985). Toward defining organized crime. In: Alexander, HE. and Caiden, GE. (Eds.) *The Politics and Economics of Organized Crime*. Lexington: Lexington Books.

Mastrofski, S. and Potter, G. (1986). Evaluating law enforcement efforts to control organized crime: the Pennsylvania Crime Commission as a case study. *Policy Studies Review*, 6 (1): 160-170.

Mazzanti, GM., Ecchia, G. and Komatsu, T. (2016). Innovative partnerships for the utilization of confiscated assets previously owned by mafias. *Social Enterprise Journal*, 12 (1): 21-41.

McFadden, M., O'Flaherty, M., Boreham, P. and Haynes, M. (2014). *Targeting the Illicit Profits of Drug Trafficking through Proceeds of Crime Action*. Hobart, Tasmania: National Drug Law Enforcement Research Fund.

Mills, H., Skodbo, S. and Blyth, P. (2013). *Understanding organised crime: estimating the scale and the social and economic costs Research Report 73*. London: Home Office. Available at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/246390/horr73.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/246390/horr73.pdf) [Accessed 15 February 2017].

Montaldo, S. (2015). Directive 2014/42/EU and social reuse of confiscated assets in the EU: advancing a culture of legality. *New Journal of European Criminal Law*, 6 (2): 195-212.

Murray, J., Farrington, D.P. and Eisner, M.P. (2009). Drawing conclusions about causes from systematic reviews of risk factors: the Cambridge quality checklists. *Journal of Experimental Criminology*, 5 (4): 1-23.

Murray, K. (2013). A square go: tackling organised crime where it doesn't want to be tackled. *Journal of Money Laundering Control*, 16 (2): 99-108.

Murray, K. (2015). Walking the walk: practical measures to undermine the business of organised crime. *Journal of Financial Crime*, 22 (2): 199-207.

Naylor, RT. (1999). Wash-out: a critique of follow-the-money methods in crime control policy. *Crime, Law & Social Change*, 32 (1): 1-57.



Nelen, H. (2004). Hit them where it hurts most? The proceeds-of-crime approach in the Netherlands. *Crime, Law & Social Change*, 41 (5): 517-534.

Newburn, T. and Jones, T. (2005). Symbolic politics and penal populism: the long shadow of Willie Horton. *Crime Media Culture*, 1 (1): 72-87.

Paoli, L. (1997). Seizure and confiscation measures in Italy: an evaluation of their effectiveness and constitutionality. *European Journal of Crime, Criminal Law and Criminal Justice*, 5 (3): 256-272.

Paoli, L and Greenfield, VA. (2013a). Harm: a neglected concept in criminology, a necessary benchmark for crime-control policy. *European Journal of Crime, Criminal Law and Criminal Justice*, 21 (3/4): 359-377.

Paoli, L and Greenfield, VA. (2013b). A Framework to Assess the Harms of Crimes. *The British Journal of Criminology*, 53 (5): 864-885.

Pawson, R. (2002). Evidence-based policy: the promise of 'realist synthesis'. *Evaluation*, 8 (3): 340-358.

Pawson, R. (2006). *Evidence Based Policy: A Realist Perspective*. London: Sage.

Pawson, R. (2013). *The Science of Evaluation: A Realist Manifesto*. London: Sage.

Pelton, LH. (1999). *Doing Justice: Liberalism, Group Constructs, and Individual Realities*. Albany: State University of New York.

Petrosino, A. and Lavenberg, J. (2007). Systematic Reviews and Meta-Analyses: Best Evidence on "What Works" for Criminal Justice Decision Makers. *Western Criminology Review*, 8 (1), 1-15.

Petticrew, M. and Roberts, H. (2006). *Systematic Reviews in the Social Sciences: A Practical Guide*. Oxford: Blackwell.

Police and Crime Commissioner for Derbyshire. (2014). Commissioner warns that crime doesn't pay. Available at: <http://www.derbyshire-pcc.gov.uk/News-and-Events-Meetings/News-Archive/2014/PR-225.aspx> [Accessed 15 February 2017].

Pratt, J. (2007). *Penal Populism*. London: Routledge.

Ratcliffe, J. (2016). *Intelligence-Led Policing*. London: Routledge.

Rider, BAK. (2007). Recovering the proceeds of corruption. *Journal of Money Laundering Control*, 10 (1): 5-32.

Rycroft-Malone, J., McCormack, B., Hutchinson, AM., DeCorby, K., Bucknall, TK., Kent, B., Schultz, A. Snelgrove-Clarke, E., Stetler, CB., Titler, M., Wallin, L. and Wilson, V. (2012). Realist synthesis: illustrating the method for implementation research. *Implementation Science*, 7:33.

Savona, EU. and Vettori, B. (2001). *The Seizure and Confiscation of the Proceeds from crime in the European Union Member States: What Works, What Does Not and What is Promising*. Trento, IT: Transcrime.

Scottish Government. (2009). *Making Sure That Crime Doesn't Pay – Analysis of responses to Consultation and Next Steps*. Available at: <http://www.gov.scot/Resource/Doc/258743/0076727.pdf> [Accessed 15 February 2017].

Schmucker, M. and Lösel, F. (2015). Meta-analysis as a method of systematic reviews. In Gadd, D., Karstedt, S. and Messner, SF. (Eds.) *The SAGE Handbook of Criminological Research Methods*. London: Sage.

Scottish Government. (2015). *Scotland's Serious Organised Crime Strategy*. Available at: <http://www.gov.scot/Resource/0047/00479632.pdf> [Accessed 15 February 2017].

Sergi, A. (2014). Structure versus activity. Policing organized crime in Italy and in the UK, distance and convergence. *Policing: A Journal of Policy and Practice*, 8 (1): 69-78.

Sheptycki, J. (2007a). Police ethnography in the house of serious organized crime. In: Henry, A. and Smith, DJ. (Eds.) *Transformations of Policing*. Aldershot: Ashgate.

Sheptycki, J. (2007b). High policing in the security control society. *Policing: A Journal of Policy and Practice*, 1 (1): 70-79.

Sherman, LW. (2009). Evidence and liberty: the promise of experimental criminology. *Criminology and Criminal Justice*, 9 (1): 5-28.

Sherman, LW. (2010). An introduction to experimental criminology. In: Piquero, AR. and Weisburg, D. (Eds.) *Handbook of Quantitative Criminology*. London: Springer.

Sherman, LW. (2013). The rise of evidence-based policing: targeting, testing, and tracking. *Crime and Justice*, 42 (1), 337-451.

Sidebottom, A., Tompson, L., Thornton, A., Bullock, K., Tilley, N., Bowers, K. and Johnson, D. (2015). Gating alleys to reduce crime: a meta-analysis and realist synthesis. Available at: [http://whatworks.college.police.uk/About/Documents/Alley\\_gating.pdf](http://whatworks.college.police.uk/About/Documents/Alley_gating.pdf) [Accessed 15 February 2017].

Smellie, A. (2004). Prosecutorial challenges in freezing and forfeiting proceeds of transnational crime and the use of international asset sharing to promote international cooperation. *Journal of Money Laundering Control*, 8 (2): 104-114.

Sonnichsen, RC. (2009). Measuring police performance. In: Mayne, J. and Zapico-Goñi, E. (Eds.). *Monitoring Performance in the Public Sector: Future Directions from International Experience*. London: Transaction Publishers.

Sproat, PA. (2007a). An evaluation of the UK's anti-money laundering and asset recovery regime. *Crime, Law and Social Change*, 47 (3): 169-184.



Sproat, PA. (2007b). The new policing of assets and the new assets of policing: a tentative financial cost-benefit analysis of the UK's anti-money laundering and asset recovery regime. *Journal of Money Laundering Control*, 10 (3): 277-299.

Sproat, PA. (2009). To what extent is the UK's anti-money laundering and asset recovery regime used against organised crime? *Journal of Money Laundering Control*, 12 (2): 134-150.

Stovin, G. and Davies, S. (2008). Beyond the network: a crime science approach to organized crime. *Policing: A Journal of Policy and Practice*, 2 (4): 497-505.

Strang, H. and Sherman, LW. (2012). Experimental criminology and restorative justice: principles of developing and testing innovations in crime policy. In: Gadd, D., Karstedt, S. and Messner, SF. (Eds.) *The SAGE Handbook of Criminological Research Methods*. London: Sage.

Terpstra, J. and Fyfe, N. (2014). Policy processes and police reform: Examining similarities and differences between Scotland and the Netherlands. *International Journal of Law, Crime and Justice*, 42 (4): 366-383.

Tilley, N. (2016a). EMMIE and engineering: what works as evidence to improve decisions? *Evaluation*, 22 (3): 304-322.

Tilley, N. (2016b). Middle-range radical realism for crime prevention. In: Matthews, R. (Ed.) *What is to be Done About Crime and Punishment? Towards a 'Public Criminology'*. United Kingdom: Palgrave Macmillan.

Tompson, L. and Belur, J. (2016). Information retrieval in systematic reviews: a case study of the crime prevention literature. *Journal of Experimental Criminology*, 12 (2): 187-207.

Tonry, M. (1997). Forfeiture laws, practices and controversies in the US. *European Journal of Crime, Criminal Law and Criminal Justice*, 5 (3): 294-307.

Transparency International. (2015). *Confiscation of Criminal and Illegal Assets: European Perspectives in Combat against Serious Crime*. Transparency International – Bulgaria, Romania, Italy. Available at: [http://www.confiscation.eu/site/wp-content/uploads/2015/03/Policy\\_Paper\\_EN\\_web.pdf](http://www.confiscation.eu/site/wp-content/uploads/2015/03/Policy_Paper_EN_web.pdf) [Accessed 15 February 2017].

United Nations Interregional Crime and Justice Research Institute. (2013). *Confiscation of the Proceeds of IP Crime: A Modern Tool for Deterring Counterfeiting and Piracy*. Turin, Italy UNICRI.

United States Department of Justice, Office of the Inspector General, Audit Division. (2011). *Audit of the United States Marshals Service Complex Asset Team Management and Oversight*. Washington, DC: USDOJ.

Van Duyne, PC. and Vander Beken, T. (2009). The incantations of the EU organised crime policy making. *Crime, Law and Social Change*, 51 (2): 261-281.

- Vettori, B. (2006). *Tough on Criminal Wealth*. Dordrecht: Springer.
- Von Lampe, K. (2008). Organised crime research in Europe: development and stagnation. In: van Duyne, PC., Harvey, J., Maljevic, A., Scheinost, M. and von Lampe, K. (Eds.) *European Crime-Markets at Cross-Roads: Extended and Extending Criminal Europe*. Nijmegen: Wolf Legal Publishers.
- Von Lampe, K. (2016). *Organized Crime: Analyzing Illegal Activities, Criminal Structures, and Extra-legal Governance*. Los Angeles: SAGE.
- Walker, N. (1999). Situating Scottish Policing. In: Duff, P. and Hutton, N. (Eds.) *Criminal Justice in Scotland*. Aldershot: Ashgate.
- Walshe, K. (2007). Understanding what works - and why - in quality improvement: the need for theory-driven evaluation. *International Journal for Quality in Health Care*, 19 (2): 57-59.
- Warchol, GL., Payne, DM. and Johnson, BR. (1996). Criminal forfeiture: an effective alternative to civil and administrative proceedings. *Police Studies*, 19 (3): 51-66.
- Webb, S. and Burrows, J. (2009). *Organised Immigration Crime: A Post-Conviction Study*. Research Report 15. London: Home Office, Research, Development and Statistics Directorate.
- Weisburd, D, Farrington, DP. and Gill, C. (2016). Conclusion: what works in crime prevention revisited. In: Weisburd, D, Farrington, DP. and Gill, C. (Eds.) *What Works in Crime Prevention and Rehabilitation: Lessons from Systematic Reviews*. London: Springer.
- White House. (2011). *Strategy to Combat Transnational Organized Crime*. Available at: <http://www.justice.gov/sites/default/files/criminal-ocgs/legacy/2011/08/31/08-30-11-toc-strategy.pdf> [Accessed 15 February 2017].
- Zedlewski, EW. (2009). Conducting Cost Benefit Analyses in Criminal Justice Evaluations: Do We Dare? *European Journal on Criminal Policy and Research*, 15 (4): 355-364.
- Zoutendijk, AJ. (2010). Organised crime threat assessments: a critical review. *Crime Law and Social Change*, 54 (1): 63-86.

## **APPENDICES**

### **Appendix 1. Search terms for electronic databases and other sources**

The following terms were used when searching the electronic databases. Where necessary, search terms were adapted to fit particular databases:

1. “organised crime” AND asset\*
2. “organized crime” AND asset\*
3. “organised crime” AND recover\*
4. “organized crime” AND recover\*
5. “organised crime” AND money\*
6. “organized crime” AND money\*
7. “organised crime” AND launder\*
8. “organized crime” AND launder\*
9. “organised crime” AND forfeit\*
10. “organized crime” AND forfeit\*
11. “organised crime” AND confiscat\*
12. “organized crime” AND confiscat\*
13. “organised crime” AND proceeds
14. “organized crime” AND proceeds
15. “organised crime” AND financ\*
16. “organized crime” AND financ\*
17. “organised crime” AND econom\*
18. “organized crime” AND econom\*
19. “organised crime” AND seiz\*
20. “organised crime” AND seiz\*

### **Appendix 2: List of experts consulted as part of this review**

Professor Stuart Kirby, University of Central Lancashire  
Professor Michael Levi, Cardiff University  
Kenneth Murray, Head of Forensic Accountancy, Police Scotland  
Dr. Mo Egan, Abertay University

### **Appendix 4: List of asset-focussed recovery intervention studies identified through our systematic searches suitable for realist synthesis (n = 104)**

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